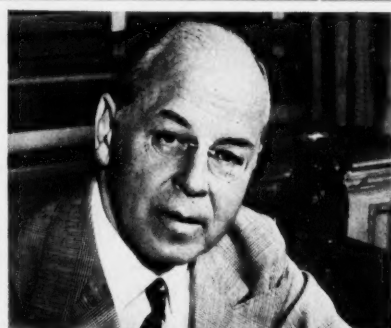


Chemical Week

June 28, 1952

Price 35 cents



◀ **MCA's Munson:** Keynotes a year of progress, gets set to tackle top industry problems p. 11

Silicone paradox: New chemical is water-soluble, water-repellent. p. 24

Here's who's doing what, where, how in the make-it-where-you-use-it oxygen race p. 34

Light, cheap aluminum foil drums push for growing single-tripper market p. 40

◀ **Solvent degreasers** with "built in" safety factor ride crest of defense boom p. 47

Where purification by distillation is ineffective, impractical or impossible

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Chemical Week

Volume 70 Number 26
June 28, 1952

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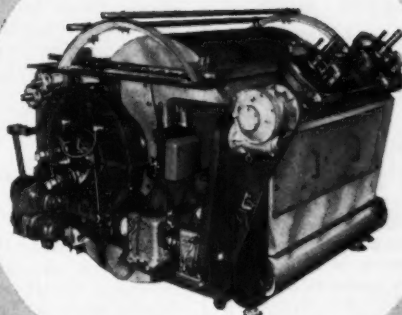
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June 28, 1952 • Chemical Week

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OPINION

Labor Surge

TO THE EDITOR: . . . I should like to tell you that CW is far more thrilling to me than any business or detective thrillers . . . but please don't fill it full of labor problems and activities.

JOHN O. BEASLEY
President
Specifide, Inc.,
Indianapolis, Ind.

Thanks, Reader Beasley. We strive to keep our reporting of all industry developments in balance with their significance. And, with labor unions kicking up their heels of late, our labor news has increased—temporarily, we hope.—Ed.

Be This Treason?

TO THE EDITOR: . . . The item "Nix on Salt" (May 3) . . . [which reported the president of the Calif. State Dental Assoc. and chief of Calif. State Division of Dental Health saying that fluorides could not be added to common salt as an alternative to fluoridation of drinking water. Their contention: Salt isn't uniformly consumed particularly by small children and infants] contains an argument that is wholly fallacious. . . .

Any parent knows that there is much greater consistency in the amounts of salt consumed by infants and young children than there is in the amounts of water they drink. The amount of solid food consumed by children, and its saline content, will be found reasonably uniform for children in families of all economic strata. But the fluids consumed by children exhibit no such consistency.

A child's fluid intake may be divided among milk, fruit juices, soda pop, and water—with water generally winding up at the end of the list. So any attempt to control the amount of fluoride administered to children has much better chance of success if salt is used as the carrier than if water is used.

In view of the fact that medical authorities are normally careful to specify precise control of any drug administered for the preservation or the restoration of health, one wonders why the self-styled "authorities" are so insistent upon the haphazard administration of fluorides by way of water supplies. Why not provide fluorides in the form of tablets (similar to vitamin pills) and distribute them on prescription through drug stores, for consumption according to a properly specified schedule?

Could it be that the proponents of

fluoridation are less concerned with the efficacy of a fluoridation program than they are with stimulating the greatest possible consumption of the fluorides—with consequent maximum profits to the producers of these chemicals? It is hard to see any other reason for their consistent condemnation of every recommendation that offers truly precise control according to the measurable need of the individual or the community.

Or perhaps the proponents of this program have so little real confidence in its efficacy (demonstrable efficacy, that is) that they fear to rely on the judgment of the individual citizen when he knows he is spending his own money—so they want to put over a socialized system that will be concealed in the general budget and paid for interminably regardless of whether there is ever any proof of what the money taken from the tax dollar is actually accomplishing in the way of decreasing dental caries.

To me, this entire question is just another example of the way those who howl about creeping socialism are willing to overlook its dangers just so long as they can make a dollar from a taxpayer-for scheme put over on the taxpayer in the mystic name of health.

And if this be treason, may you make the most of it.

W. METCALF
Boston, Mass.

CW respects and appreciates your views, Reader Metcalf, and in some respects agrees with them. We disagree, however, with the suggestion that chemical makers are pushing for water fluoridation to reap fat profits.

We, incidentally, have never taken a stand pro or con water fluoridation. It is our feeling that the issue is not one for our industry to rule upon; rather it should be evaluated, and decided upon, by medical men.—Ed.

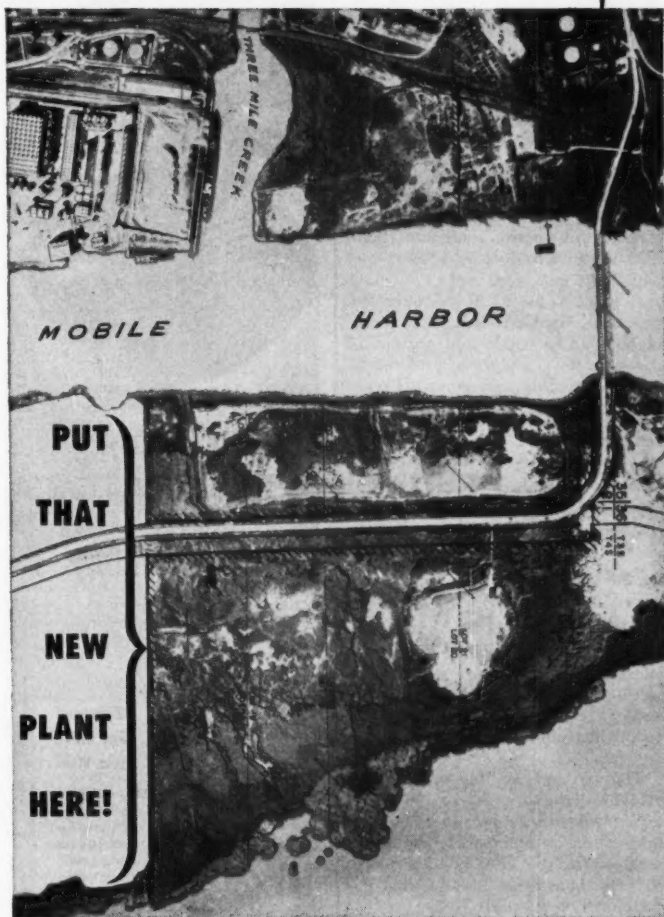
French Dyestuffs

TO THE EDITOR: . . . In your news article "Dyes: Dark Outlook" you mention the Francolor Co. of Paris . . . but the information concerning it is not strictly up to date . . .

By a decision rendered by the Higher Court of Paris . . . 51% of Francolor stocks which were temporarily detained by the French Government have been released and turned over to the three French companies responsible for the formation of the Francolor Co. . . .

Consequently, these companies fully control the properties, rights and interests of the former Francolor Co. . . .

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OPINION

and a new company Compagnie Francaise des Matieres Colorantes has been formed who controls these rights . . .

H. DE VALLEE
President
Francolor, Inc.
New York, N. Y.

CW, in referring to Francolor, said that 51% of the stock of this company—which controls about three quarters of the French dyestuff and intermediates industry—was held by the French government. We appreciate Reader de Vallee's updating of this segment of our dyestuffs report.—Ed.

Resist that Urge

TO THE EDITOR: . . . In your Market Newsletter you mention that: "De-control, anti-control sentiment, bloated when sulfuric acid makers met with NPA last week". . .

It looks to me as if you bumbled, stumbled, fumbled with "that there" bloated. Use hassle and spate . . . if you must . . . and even "profitunist," as you once did . . . if you can't resist the urge to coin words . . . But learn how to spell bloated . . .

GLEN R. MITCHELL
Tulsa, Oklahoma

Profitunist is a word that these minkish times, sadly enough, forced upon us. We meant bloated—e.g. breaks through the surface.—Ed.

Polybutene Calks

TO THE EDITOR: . . . We were quite interested in your news story "Polybutene Potential" (May 17) . . . were excited by one of the pictures you used which shows a man using a calking gun.

The gun and cartridge are our own patented item . . .


We believe . . . this use of the picture will be interpreted as an endorsement of the use of polybutenes. We have no knowledge of any such endorsement on our part . . .

I am sure you will understand our interest . . .

H. WESLEY HIBBERT
Vice President
Pecora Paint Co.
Philadelphia, Pa.

CW welcomes expressions of opinion from readers. The only requirements: that they be pertinent, as brief as possible.

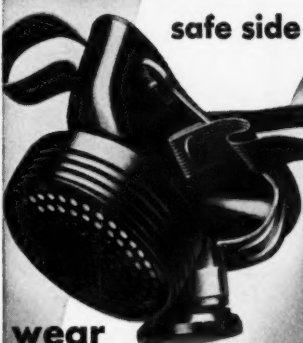
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U.S.I. CHEMICAL NEWS

June 28

★

A Series for Chemists and Executives of the Solvents and Chemical Consuming Industries

★

1952

20th Anniversary

1932 - 1952

This is the 20th anniversary issue of U.S.I. CHEMICAL NEWS. This series for chemists and executives of the solvents and chemical consuming industries started in June 1932. For a brief history of the "News," see the article at the bottom of column one on this page.

Make Plasma Substitute From Discarded Red Cells

Scientists believe they have found a substitute for blood plasma in a new substance derived from red blood cells, according to a recent announcement. The product consists of proteins taken from red cells and prepared so that they can dissolve in the blood stream and feed the body in the same way that plasma does. Since red cells are largely wasted in present processes, the new substance is cheaper to produce than plasma and will increase the protein yield of each blood donation by more than three times, it is claimed. The protein part is said to be the most valuable when plasma is given for nutrition or to combat shock.

New Chemical Weed-Killer Produced by U.S.I.

New Herbicide, Applied to Soil as Pre-Emergent Spray,
Controls Grassy Weeds in Many Broad-Leaf Crops

Marking the latest expansion in its aggressive program to provide the agricultural world with safe and effective controls, U.S.I. recently announced its commercial production of IPC, a new chemical weed killer. Up to now, U.S.I.'s

agricultural line has been concentrated on a wide range of insecticide and insectifuge materials. IPC is the first herbicide to be added to U.S.I.'s long list of valuable products.

Vitamin B₁₂ Counteracts Growth Depressing Action Of Alfalfa in Chicks

Recent research in poultry nutrition is reported to have shown that vitamin B₁₂ is effective in overcoming the growth inhibiting properties of alfalfa. Dehydrated alfalfa meal is a common ingredient of practical poultry rations. Feeding of alfalfa to chicks is said to be subject to limitation, however, because of the growth depressing effects it has when fed at high levels. In experiments conducted at a leading midwestern college, vitamin B₁₂ was found to be capable of counteracting the unknown toxic factors in alfalfa, and to produce in chicks a marked improvement in livability and growth under the experimental conditions.



U.S.I. Tests Demonstrating IPC's Effectiveness

IPC (isopropyl N-phenyl carbamate) is a new type of weed killer which is designed to be applied as a pre-emergent spray to the soil rather than to the weeds themselves. In most cases, the chemical acts as a selective grass killer, eliminating grassy weeds from many broad-leaf crops without harming the valuable plants. IPC is applied evenly over the soil surface, after which moisture from rains or irrigation water, carries it into the root area of the soil. The chemical acts on the expanding embryos of seeds as well as on root systems that have already developed so that

MORE

U.S.I. Chemical News Celebrates 20th Anniversary with This Issue

Famed News Sheet Has Served Industry Since June 1932

With the current issue, U.S.I. proudly marks the 20th anniversary of its popular news-insert advertisement, U.S.I. CHEMICAL NEWS. This issue you are now reading is the 241st "blue sheet" to be published since June 1932 when the record-breaking series began in leading chemical and drug publications. The name on the masthead then was SOLVENT NEWS, U.S.I. being at that time primarily a producer of solvents and plasticizers. Its purpose—then a new idea in advertising—was to furnish chemists, purchasing agents, and executives of the solvent-consuming industries with up-to-date information on markets, prices and technical developments in their field. Industry immediately recognized the "NEWS" as a valuable service. Soon after it appeared, inquiries concerning news items were averaging a hundred per month. At the present time, more than 500 inquiries are received each month.

As U.S.I. continued to broaden its activities beyond the manufacture of solvents and plasticizers, the scope of SOLVENT NEWS also expanded. In May 1940, the name was changed to U.S.I. CHEMICAL NEWS, a reflection of the company's growth in the chemical and

MORE

SOLVENT NEWS

THE FIRST U.S.I. "BLUE SHEET"—JUNE, 1932.

SOLVENTS MORE CLOSELY IN CONTACT IN CURRENT MARKETS

ALCOHOL PRICES RELEASED TO THE INDUSTRY FOR THIRD QUARTER

NO CHANGE FROM PRESENT LEVELS

ETHYL ACETO ACETATE DEMONSTRATES VERSATILITY

NEW LACQUER LINSEED OIL ANNOUNCED

ETHYL ACETO ACETATE DEMONSTRATES VERSATILITY

NO POST OFFERS NEW WATERPROOF MATERIAL

The first U.S.I. "blue sheet"—June, 1932.

Polyvinyl Acetate Makes Concrete Mortar Stronger

Recent work has reportedly shown that polyvinyl acetate can be added to concrete mortar to increase strength of the cured products as much as three times over that of pure cement mixes. PVA mortars are also claimed to be superior to pure concrete in having greater resistance to abrasion and higher impact strength, and in not cracking under sudden loads and thermal stresses. Best results have been obtained with a polymer to cement ratio of 1 to 5. No plasticizer is required in adding the plastic. Uses suggested for PVA mortars include floor toppings and road surfacings, wall and ceiling cement plasters, and masonry surfaces where self curing and bond strengths are extremely important.

June 28

★

U.S.I. CHEMICAL NEWS

★

1952

CONTINUED

New Weed-Killer

it is able to prevent as well as kill weed growth. When the roots or seeds of affected grasses come into contact with even minute amounts of IPC, cell division within the plants is seriously disrupted and growth is arrested. If the plants are small, they generally die within two weeks. Older grasses take longer to die, but their growth is effectively stopped upon exposure to the chemical.

The herbicide will remain active in most soils for periods of 30 days or more. It does not build up in the soil, however, so that it has no cumulative effect. Generally, low temperatures and low incidence of soil bacteria tend to lengthen the life of the material in the soil. IPC does not move laterally in the soil. One of its principal advantages is its latitude of safe dosages which results from its extreme selective phytotoxicity. Uniformity of application, while desirable, is not as critical as with most other herbicides.

Stable, Non-Corrosive

U.S.I.'s product, which is furnished in 98 percent minimum purity, is in the form of fine, easily dissolved needle-like crystals, white to light gray in color. The compound is stable at storage conditions for indefinite periods, and it is non-corrosive to metals normally employed in handling and application equipment. IPC is apparently not toxic to humans or animals, but the ordinary precautions in regard to skin contact and continued inhalation should be observed in handling it as with any other organic chemical material.

Nucleus Has Orbits, Too

Recent nuclear research is reported to indicate that protons and neutrons within the nucleus have regular orbits and closed shells in much the same manner as external electrons. Many quantitative aspects of radioactive decay can be explained by shell effects, with closed shells accounting for the unusual stability of nuclei of some atoms, it is said. Small energy effects can be related to changes in sub-shell structure within the nucleus.

CONTINUED

20th Anniversary

fast growing synthetic resin fields. Today, except for wider news coverage, the original editorial policy of "service to industry" is still followed.

News sources for U.S.I. CHEMICAL NEWS, called by some readers "the front page of the chemical industry," are as varied as those of larger technical publications. Manufacturers regard it as a primary outlet for news of their new products and are quick to forward their announcements to the editor. The "News" has often scooped its bigger counterparts on stories. Research men and engineers are on record as saying that they never miss the "Technical Developments" column, which in 20 years has carried announcements of more than 2,400 new products and processes.

The series has never missed a month since it started. All 241 numbers have been printed in blue on distinctive light blue stock—a trade mark that was maintained only with difficulty during war-time scarcities. At one point, it was even necessary to use an over-all color plate to pre-print the light blue because paper of that color could not be obtained.

U.S.I. CHEMICAL NEWS appears regularly in seven publications, giving it a circulation of more than 180,000. An additional 12,000 members of chemical and related industries receive the "News" in the form of a 4-page mailing piece.

New Booklet Describes Synthetic Waxes, Uses

Synthetic waxes with a wide range of physical properties are fully described in a new catalog, recently made available. The waxes include amide and ester types which range in hardness from soft to brittle and in melting points from 55° C. to 143° C. Use data are listed for such applications as coatings, lubricants, anti-tack agents, electrical insulation, flattening agents, and drawing compounds.

TECHNICAL DEVELOPMENTS

Information about manufacturers of these items may be obtained by writing U. S. I.

New polytetrafluoroethylene pipe, reinforced with glass fiber, is claimed to be rigid and strong in wall sections as thin as 0.030 in. and to be suitable for use with virtually every known chemical. (No. 808)

A new rubber-phenolic varnish is said to permit the manufacture of laminated plastics with two to three times the impact strength of those made with conventional varnishes. Gears, tubing, castor wheels, and paper coatings are among expected applications. (No. 810)

A liquid polyvinyl chloride stabilizer, containing barium and calcium soaps and a synergist, is reported to impart good initial color and clarity, to be efficient under dynamic heat conditions, and to require no pregrinding for complete dispersion. (No. 811)

Metallic lead dust homogenized in heavy-duty grease is said to provide a new lubricant which resurfaces pitted and scored bearings and gears and forms self-lubricating surfaces over all wearing parts. (No. 812)

Tap water becomes chemically pure when it is squeezed from a new polyethylene bottle having a special deionizing filler fitted in the neck like a stopper. Filter processes up to 20 gallons and changes color when consumed, according to the manufacturer. (No. 813)

An aluminum tinting paste, claimed to give a brighter finish than conventional aluminum pigments without interfering with true color values, is now available for use in auto and household finishes. (No. 814)

A new automatic burette, available in 10 and 25 ml. sizes, can be filled to the zero-mark simply by squeezing the polyethylene reservoir into which it fits. A polyethylene delivery tube is said to offer further safety from breakage. (No. 815)

To make solid derivatives of alcohols and phenols that can be separated and purified easily, N-bromophthalimide is being offered as a new laboratory reagent. Compound is reported to minimize formation of side products and to be stable and easy to store. (No. 816)

Carbon formation can be prevented in any internal combustion engine or oil burner, it is claimed, by using a new blending agent in the fuel which liberates free oxygen upon ignition, making the flame cleaner and hotter. (No. 817)

A non-explosive, non-toxic litho blanket and roller wash for printers contains no carbon tetrachloride or coal tar solvents, is an efficient, quick-drying solvent, and is entirely safe to use, the manufacturer states. (No. 818)

To adhere silicone-treated surfaces of paper, wood, ceramics, and metals, a new adhesive is available which can be used as efficiently in high-speed gluing machines as any standard adhesive. (No. 819)

PRODUCTS OF U. S. I.

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Amyl Alcohol (Isoamyl Alcohol)
Butanol (Normal-Butyl Alcohol)
Fusel Oil—Refined
Propanol (Normal-Propyl Alcohol)

Ethanol (Ethyl Alcohol)

Specialty Denatured—all regular and anhydrous formulas
Completely Denatured—all regular and anhydrous formulas
Pure—190 proof U.S.P.
Absolute—200 Proof
Solox—proprietary solvent—regular and anhydrous

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Ansol® PR

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Piperonyl Cyclonene
Pyrenone® Concentrates: Liquid & Dust
Pyrethrum Products: Liquid & Dust
Rotenone Products: Liquid & Dust

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Indalone®
Triple-Mix Repellents

INTERMEDIATES

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Acetoacet-arthro-chloroanilide
Acetoacet-arthro-isulotide
Acetoacet-para-chloroanilide
Ethyl Acetoacetate
Ethyl Benzoylacetate
Ethyl Sodium Oxalacetate

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NEWSLETTER

Like it or not, your business plans have to march in step with Washington thinking. More than any other single force, what government planners think, how they act, shape up the outlook for the chemical process industries—for sales, profits, growth.

Here, as they outlined them to CW in a series of special conferences, are up-to-the-minute opinions of Washington's top officials:

- **Business.** Today's level of business activity will prevail during the balance of 1952, says Economic Advisor Leon Keyserling. Next year looks good, too, but some adjustment will take place when defense is built up to currently contemplated levels. How much of an adjustment? Reasoning by analogy to 1945-46, Keyserling points out that the fall-off after World War II was four times as great as this one will be—and the adjustment then was far less severe than was expected.

- **Taxes.** Whether Taft or Eisenhower is the Republican nominee, taxes will be lower if a Republican is elected in November. Taft promises a 15% cut, from the present \$70 billion level to \$60 billion. Democratic Candidate Harriman, on the other hand, foresees no immediate cuts since he believes defense spending must be maintained.

- **Impact of taxes on business.** Neither party looks for a speedy reduction of the public debt; thus high taxes mean high governmental spending, in which the process industries share. Lower taxes, on the other hand, shift the pendulum from governmental to consumer spending, in which the process industries again share. Pay your money and take your choice.

- **Foreign trade.** One of the first foreign policies to face a new president will be reciprocal trade agreements, says Assistant Secretary of State Willard Thorp. Pressures will be exerted for and against our three alternatives: boost imports, cut exports, maintain foreign economic aid. The process industries fear foreign competition but still like foreign business. At the same time they are discommoded by taxes for foreign aid. It's a three-pronged "trilemma," and any choice is bound to be bucked.

- **Military economy.** But businessmen are bound to be pleased by the Defense Department's new emphasis on efficiency in operation of industrial-type facilities. A new "industrial fund" accounting system provides business-like budgets operating along "corporate" lines, admits comparison of facilities among each other and with private plants. The Army's Rocky Mountain chemical plant has been run this way and the idea's spreading. Upshot: If the military can't do it efficiently, private firms will get the contracts.

- **Stockpiles.** "Intermediate" stockpiling of scarce metals and minerals, advocated by Defense Materials Procurement chief Jess Larson, would provide an "ever-normal granary" of these commodities, would stabilize price and supply. Under present law, Munitions Board stockpiles can't be tapped except by Presidential fiat, but the intermediate kind could be used like a checking account.

• Titanium. Economic use of titanium is still about eight years away, opines Larson, in spite of the government's heavy underwriting of research. Four different approaches to winning the metal are now under intensive study.

• International Materials Conference. Drop IMC, say government officials, and you lose a potent bargaining weapon, sulfur, in our efforts to get nickel, cobalt, columbium, manganese and other vital commodities. Another IMC bonus, they say: It keeps prices down.

• Controls. Keyserling caught OPS's Ellis Arnall with his prices down by declaring that inflationary pressures are receding, and that if there were no controls on the books now, he wouldn't advocate writing any. Arnall professed to see price hikes—even on chemical products—if ceilings were removed. By different routes, they got to the same point: Let's keep what controls we have—in case inflation resurges, says Keyserling; to keep prices down now, says Arnall.

• Atomic Energy. Although the Paley committee takes a dim view of atomic power (see p. 12), Atomic Energy Commissioner T. Keith Glennan is sure that it will pay off. The U.S. is a poor proving ground, says he, since we have cheap and abundant power; but in some parts of the world, atomic power could probably compete right now on an economic basis. To encourage industrial participation in power and other phases of the atomic program, AEC has set up an Office of Industrial Development under William Lee Davidson. It's only a man-and-secretary-and-two-desks operation right now, but it shows the trend of AEC thinking.

More by their attitudes than by their words, these officials evoked the feeling that the confusion inevitably attending military build-up and imposition of controls was now largely dispelled. Plans and policies are now oriented, like iron filings near a magnet, into a coherent and recognizable pattern—and that makes it easier for everyone.

It isn't likely that Congress will have time this year, but look next year for bills based on the Delaney committee recommendations.

First of the committee's reports—on fertilizers—was mild; but last week's report on cosmetics, second in the series, declares that present federal laws are inadequate. Among the suggestions: compulsory pretesting, as with new drugs; inclusion of soaps in the cosmetics classification; labeling as to ingredients; no exemption from legal provisions for coal-tar hair dyes, which now enjoy special treatment.

From now on the weekly list of DPA-certified chemical expansions will get shorter. DPA has warned firms planning new facilities to consult with NPA's chemical division to find out if fast tax write-off would be granted.

Reason for the official action, suggested two months ago (CW, April 26): Many expansion goals have been attained; and for many others, enough applications are already on hand to meet them.

Echoing CW's editorial on soil conditioners (June 7), Lea S. Hitchner, executive secretary of the National Agricultural Chemists Association, has come out against "misleading advertising . . . other promotion of . . . products not adequately tested."

He advises home gardeners to buy products only from reliable firms, to seek guidance from USDA and other impartial researchers.

. . . The Editors



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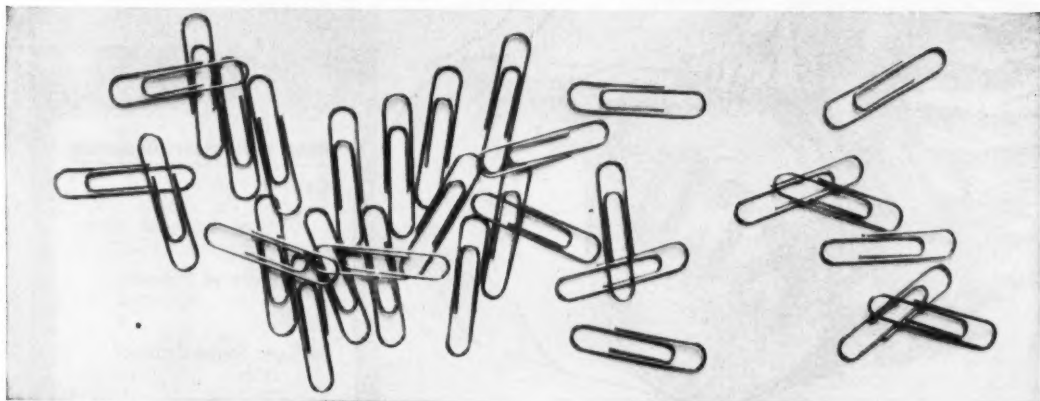
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June 28, 1952 • Chemical Week

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BUSINESS & INDUSTRY

Big Gains, Bigger Objectives

MCA, now chemical industry spokesman, gets blueprint of stepped-up public relations program.

Pilot opinion survey shows public is ignorant of the chemical industry; regards it favorably generally, but thinks:

- Employment in it is dangerous or unhealthy.
- Plants are undesirable neighbors.
- Competition is limited.
- It needs much government regulation.

The most important accomplishment of the Manufacturing Chemists' Association last year was "largely an intangible."

That's the opinion of Charles S. Munson, outgoing MCA board chairman, in summarizing fiscal 1951-1952's activities at the Association's 80th annual meeting at White Sulphur Springs, W. Va. early this week. He refers to the organization's transition from its lifetime (79 years) role concerned primarily with internal industry affairs to its new (1 year) "and more articulate" status as spokesman for the chemical industry.

The decision to tell industry's story to gain the public support and understanding necessary to run a business today was a sound one. At least its wisdom is reinforced by the results of a pilot survey of the public's attitude toward the chemical industry which MCA commissioned as part of its program. This poll was conducted by

Opinion Research Corp., Princeton, N. J. on a small slice of the population—352 interviewed personally—but one representing a national sample balanced according to section of the country, community size, sex, age, race, occupational group and economic level.

Though Dilman Smith, of Opinion Research, cautions that the results must be considered preliminary because of the size of the sample, he advises that some broad conclusions can be drawn to indicate where the chemical industry is strong, and where weak, in the public's attitude toward it.

Many Assets: Generally the public thinks well of the chemical industry, regards it favorably in comparison with other large industries. The man in the street knows it for its pioneering research and development of new products. (Of seven large industries listed on a card, chemicals was checked by 38% of respondents as "doing most to develop new and better products," as against 18% for airplane manufacturing, 13% for automobiles, 10% for steel.)

The average person realizes that chemical business contributes significantly to higher standards of living, has no resistance to synthetics—in fact, feels that they are better and cheaper than natural products, that they conserve natural resources. He would advise a young friend that it's a "good idea" to go into some line of chemistry. Moreover, he thinks the industry is important to, and doing a good job, in the war effort.

Many Minuses: But while the public generally holds chemical manufacturing in its esteem, as shown by these answers, there exist, too, hostile attitudes and areas of no opinion growing out of lack of information or misinformation. To begin with, the Opinion

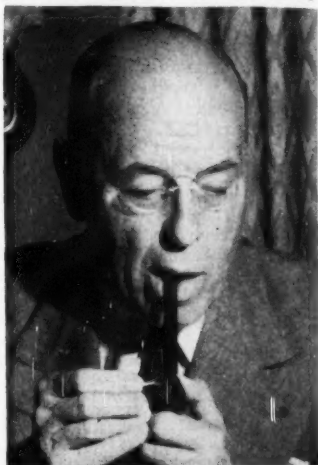
Research work indicates that the chemical industry is not nearly so well known as other big industries: The auto, steel and airplane industries had more people say they knew "most about" them (31%, 12% and 9% respectively) than did the chemical industry (only 4%).

Industry men can well believe those figures, for a majority of people single out the chemical industry as the one which is particularly dangerous or unhealthy to work in. Main reasons: danger of explosions; fumes and gases. This opinion that is so contrary to the facts probably has its roots in some spectacular disasters or widely-publicized horror stories of the past; it can be changed, says Smith, but not easily.

For similar reasons—air pollution and the danger of explosions—a goodly number doesn't want a chemical company in its community. And of those who do think a chemical plant is a desirable addition, opinions are based mainly on economic considerations.

On the matter of competition, only about one person in three thinks there is a great deal of it in the chemical industry. Even worse, some 35% flatly say that two or three companies get almost all the business. More than half are either critical or uninformed—a large segment of the public against, or potentially against the industry.

Again, almost half think profits are too large or have no opinion. And nearly three people in four think the



PRESIDENT MUNSON: Intangibles are important.



CHAIRMAN WARD: From intangibles, a concrete program.

chemical industry should be regulated as closely as, or more closely than industry generally. But much of this sentiment for regulation is based on the feeling that it is needed to protect the safety and health of the worker and community.

Pattern for Education: To win the public understanding the industry does not now enjoy, a long-range public relations program for MCA was to be voted upon at the meeting. This program is to be directed at the key opinion leader groups—editors, commentators, educators, government officials, members of professional and civic organizations, etc. Specific tools to be used include:

1. An information service which will accumulate information pertinent to the industry's public relations problems for answering queries from press, radio, television and other important groups.

2. Facts books to be prepared annually as a popular reference on the industry.

3. A speakers' bureau which would guide member companies in getting and filling speaking dates, provide their officials with research material and speech outlines about the industry, publicize such speeches, encourage MCA officials and industry leaders to make public appearances on behalf of the industry.

4. An industry-education cooperation program to tell the industry story at youth level, in part to attract more and better students to a career in chemistry.

Aim of those within the MCA drawing up the program was to get it under way as soon as approved.

Moving Ahead: Munson (Air Reduction Co.) in detailing the accomplishments of the year paid warm and well-deserved tribute to George Merck (Merck & Co.), outgoing president, for the substantial start already made on MCA's new role. He also detailed more of the year's record: help in mobilization and controls programs; the Association's registration under the Lobbying Act to support good legislation, oppose harmful and unworkable legislation; the successful mid-winter conference devoted to industry problems.

But though Munson is passing the chairmanship on to Du Pont's William H. Ward for the coming year, he will remain in a key position as president. Others in top posts to carry "intangible" progress into concrete action: Enjay's Harold W. Fisher becomes vice-chairman, with J. W. McLaughlin (Union Carbide) and MCA's Maurice Crass continuing as treasurer and secretary, respectively.

Skyscraper to Silviculture

Union Carbide & Carbon, which for years has kept its nerve center in a grand canyon near New York's Grand Central Station, plans to move administrative offices to the rolling hills of suburban Westchester County.

Union Carbide has contracted to buy the 280-plus acre James Butler estate six miles northwest of White Plains. Upon obtaining a changed zoning law classification, it will take title to the tract long owned by the Empire City Racing Association, which had been thinking of it as a track site.

UCC will spend an estimated \$12 million to erect administrative offices and research laboratories, as well as

incidental recreational facilities. In considering a move to the suburbs, the company emphatically asserts that not all its 2,500 New York employees would be asked to relocate. Sales and purchasing personnel, of course, would be among those to whom the advantage of close proximity to customers and suppliers outweighs the morale value of sylvan surroundings.

The new location, while definitely rural, is far from isolated. It is near the New York Central's Harmon station, junction point for all outgoing Central trains and only 45 minutes from downtown New York. It is also close to the White Plains airport, serviced by American Airlines.

Blueprint for Materials

This week, chemical men were donning reading glasses again. Reason: The five-volume **Materials Policy Commission** report on what's ahead for supplies of basic raw materials was off the press.

And in many cases, the report—already "the Paley report" (for committee chairman Bill Paley of the Columbia Broadcasting System) — shows that somebody else's loss is the chemical industry's gain.

The commission was set up 18 months ago by President Truman to study the long-term trends of material production and consumption in the U. S. and the rest of the world. The report projects estimates for 1975 compared to 1950.

Prepared by a staff which included both government and industry men, the opus is a monumental reference—one which, in a way, updates the 1940-41 survey by the National Resources Planning Board.

In many cases, the report's conclusions are obvious, but the inclusion of massive amounts of supporting statistics perhaps gives a note of urgency to the need for materials conservation. In general, the trends it spots are not new ones, but merely the continuation of what has gone before, though at a higher rate.



PALEY: Charts and recommendations.

One perhaps disturbing aspect of the report is its plea for more and different Federal agencies set up specifically to examine and keep tabs on different aspects of materials supply. While few industry men would object to keeping tabs on supply, there is a danger that this could develop into regulation.

Metal Replacements: The Paleyites warn the metal-consuming industries

CURRENT LIST OF DPA-CERTIFIED FACILITIES

Company, Location	Product	Amount Certified	% Certified
Tennessee Copper, Copperhill, Tenn.	Sulfuric acid	\$2,944,500	70
Stauffer Chemical, Compton, Calif.	Sulfuric acid	250,000	70
Aluminum Ore Co., East St. Louis, Ill.	Cryolite	750,000	85
Air Products, Iselin, N.J.	Oxygen	19,282	45.50
Air Products, Parkersburg, W. Va.	Oxygen	5,976	45.50
Wheeling Steel, Fellonsbee, W. Va.	Coke, coal chemicals	5,210,500	45
National Petro-Chemicals, Tuscola, Ill.	Ethyl chloride	4,515,950	65
Hardesty Chemical, Dover, Ohio	Sebacic acid	539,000	80
Chas. Pfizer, Croton, Conn.	Penicillin	7,300,000	60

that the day is not far off when scarcity will make prices for some metals go up to the point that economics will dictate the use of substitutes. Still ahead is this substitution on an even larger scale.

Much of this switching would be to plastics, the report states, which have an advantage not only in the great variety of their chemical and physical properties, but in the variety of raw materials. There may be one or two economic sources of one metal ore, but a variety of sources for that of a plastic, since many can be produced as coal-coking by-products, through coal hydrogenation, or from petroleum sources.

Chemical Trends: Future progress for the chemical and chemical process industries is forecast both because of the number of sources of its raw materials and because of the variety of processes which can be used in transformation to finished goods.

There are no long-term problems of raw materials supply for the chemical industry in the United States, the report asserts, which give our industry an advantage over the chemical industries in other industrial countries where shortages of such basic raw materials such as coal, petroleum, natural gas, sulfur and lignite will put them into an increasingly poorer competitive position.

Foods and Fibers: The emphasis on greater efficiency in food production will mean greater use of plant foods, pesticides and animal feed supplements. In the fiber field, the experts see a continuing growth of synthetic fibers and textile chemicals. In effect, the report says: "You can't stop synthetics' progress."

The commission virtually writes off the use of atomic energy as an economic source of industrial power. Scarcity of coal and other fuels won't be great enough to put these materials at a competitive disadvantage—at least during the next 25 years.

Growing Government: A good part of the recommendations concern future federal policy. The commission recommends a permanent foreign aid agency as successor to MSA, a group to keep track of public and private research on materials, an agency to deal with all types of fuel and power, an agency for materials planning itself, to do over a long-time basis what the Paley commission has done on a one-shot try.

But while many industry men may debate the need for this number of agencies (and the power which would accrue to the federal government), they could at least look to the Paley report as a basis for future argument.



NEW ZINC BONANZA: U. S. and Canadian firms join in venture.

Wilderness to Yield Zinc

The coming of cafeteria-and-movie civilization to the muskeg-swamp wilderness of Barraute Township in Northwest Quebec province of Canada is the prelude to an expected flow of thousands of tons of zinc into American industry.

Powerful pumps are at this moment spewing forth streams of water to wash away an overburden of muddy clay so that open-pit mining of zinc and silver can begin there next month.

This rich deposit* lies near St. Blaise village, which less than a year ago was hardly big enough to have a name but now is the hub of a growing mining community with a mill construction program that is keeping 500 men busy day and night. Making the project possible: engineering ingenuity and \$7 million in cash.

Once Staked for Gold: Located about 380 miles straight north of Rochester, N.Y., and 22 miles east of the town of Amos, the ore field was discovered when a local geologist noticed a small outcrop of rock in a tract formerly staked off as a possible gold mining site. Land-owning farmers heeded the advice that the proper-

ty might have value, and optimistic miners raised exploration money.

Yankee and Canadian companies have joined hands to work out this multi-million dollar undertaking. The mining will be done by Barvue Mines, Ltd., 53% of which firm is controlled by another Canadian company, Golden Manitou Mines, Ltd. Also in on the venture: Aluminum Co. of Canada and U.S. Steel Corp., the world's largest producers of aluminum and steel, respectively; and the American Zinc, Lead & Smelting Co. U.S. Steel is associated through a subsidiary, American Steel and Wire Co.

Boost For Aluminum: Alcan is helping by construction of a \$2½ million plant at Arvida for the flash roasting of zinc concentrates to extract between 40,000 and 50,000 tons of sulfuric acid annually for its own needs. The acid will be used with fluorspar to make hydrogen fluoride for converting alumina into artificial cryolite.

The zinc concentrates, in calcine form, then will be shipped to American Zinc (probably its Fairmont plant in East St. Louis, Ill.) to be smelted into slab zinc. This material will be bought by American Steel & Wire.

Contracts for the sales are on a firm basis, covering 175,000 tons of

* Ore reserves for the concentrator are estimated at 17 million tons, enough for 14 years of mining at a rate of 4,000 tons daily. Grade has been estimated at 3.2% zinc and 1.1 ounces of silver.

zinc concentrate at 17½¢/lb., U.S. funds. American Zinc has an option on an additional 175,000 tons at the same price, with an escalator clause to allow for possible cost and wage increases.

Deal One of Biggest: The first 175,000 tons of concentrates will yield approximately 200 million lbs. of zinc with a gross value of \$35 million. This makes the contract one of the largest of its kind ever made in North America.

The solid financial backing has enabled Barvue Mines to start construction of the continent's largest initial mill installation for any new mine of any kind since the Hudson Bay Mining and Smelting plant was constructed at Flin Flon in 1930. The Barvue plant, begun last January, is designed to handle a minimum of 4,000 tons of ore daily.

The ore has slumbered for centuries under a blanket of from 15 to 25 feet of moss-covered clay which is frozen solid through the long, snowy winters of the Hudson Bay region. In summer it is muddy, hungry-looking farmland.

Pits Good For 3 Years: Now being denuded of this mucky covering is a slab of ore about 300 feet wide by 2,500 feet long. The ore obtainable by open-pit mining amounts to an estimated three- to four-year supply. However, the shaft that will be needed for underground mining is expected to be started this summer. It will be carried to a depth of 1,000 feet to prepare the ore for production when necessary.

Townsite planning is proceeding well ahead of St. Blaise's present construction, which consists chiefly of two huge bunkhouses, the mill, a cafeteria that outshines many eating places in big cities, and the quonset movie theater that will begin its showings next month.

The boom has reminded Chapleau district old-timers of the development that stemmed from Ed Horne's prospecting for copper, gold and silver near Noranda in 1911, which first put Northwestern Quebec on the map as a profitable mining area.

New Policy on Water

The Tennessee Valley Authority, which has made the Tennessee Valley region a haven for chemical plants by providing plentiful and cheap water and power, will not be the pattern for river development in the rest of the nation.

After months of conferences, the Bureau of the Budget is nearly ready

to deliver to the White House its proposal for a law setting up a new federal policy on use of water resources. The Bureau's plan reportedly will steer a middle course between TVA-type development and control by states and localities.

No Reshuffling: The new proposal does not call for much reshuffling of functions; it leaves the Army Engineers in charge of civil works. Guiding the dam-building program in each river basin will be a commission appointed by the President and including representatives from each state concerned.

To coordinate planning and construction in the various river valleys, there also would be a federal board of review. It would review all basin plans and make recommendations to the President.

LEGAL

"Socialistic" Fluorine: If a city government can put fluorine in the water supply to prevent tooth decay, its next step might be to spike the drinking water with drugs to make people happy, or docile, or hard-working. This was the reasoning of Attorney William J. Krause, in planning to file a taxpayer's suit to keep Cleveland from fluoridating its water. By similar suits, Krause forced the outlawing of slot machines in Cleveland in 1939 and bingo in 1951. He says fluoridation is socialistic.

Lederle Clears Lederle: When Parke, Davis & Co. sued American Cyanamid and its Lederle Laboratories Division alleging infringement of a Parke, Davis patent, the case came up in U.S. District Court in Detroit before Judge Arthur F. Lederle. The judge, who said he would not disqualify himself because he had never heard of the laboratories bearing his name, dismissed the case before trial. He held that Cyanamid's synthetic folic acid did not infringe the patent for the Parke, Davis product, which is derived from animal sources.

Sex Drug Censored: Distribution and sale of Yale Testrex, a sex hormone product, have been ordered halted temporarily by Circuit Court in Hot Springs, Ark. The distributor, Yale Pharmaceutical Co., is accused of a violation of the state food and drug act. The company also faces action by a federal grand jury on a charge of using the mails to defraud in connection with sale of the product.

Bottle Battle: Processes of blowing plastic bottles are the bone of con-

tention in the case in which Plax Corp. of Hartford, Conn. sued Elmer E. Mills Corp. of Chicago, charging patent infringement. The U.S. District Court in Chicago found for Plax and asked its lawyers to prepare a proposal for a judgment. Mills announced it would appeal immediately to try to prove that its methods are based on principles of plastics fabrication while the Plax patents are based on glass-blowing techniques.

EXPANSION

Ethylene oxide and polyethylene will be the primary products at Carbide and Carbon Chemicals oft-reported Seadrift, Tex., plant (CW Newsletter, Feb. 16). Actual construction will begin this fall.

Fluorocarbons: M. W. Kellogg is now building new capacity at Jersey City, N.J., for its Kel-F plastic. The facilities, estimated to cost \$1 million, will include new production process details. Kellogg estimates that by the time the plant is in full operation in November, the company will be producing its monochlorofluoroethylene plastic at a rate of well over a million pounds per year.

COMPANIES

International Mineral and Chemical plans to issue 41,700 shares of its common stock to acquire 7,487 shares of the Hoover and Mason Phosphate company. The shares will give International control of the company.

Lindsay Light & Chemical, whose name dates back to the days when its rare earth salts went primarily to gas lamp mantles, has changed its name. Now it's Lindsay Chemical.

Penobscot Chemical Fibre (Bangor, Me.) is planning sale of \$1.25 million in first mortgage bonds, due July 1, 1972. Proceeds will help pay for the \$1.35 million improvement program the company now has underway.

Archer-Daniels-Midland plans to issue 30,000 shares of its stock to acquire all the outstanding stock of Keystone Chemurgic Corp., and 4,500 in addition, to acquire control of all the stock of Chlorophyll, Inc. ADM will establish a chlorophyll division to manufacture and sell chlorophyll derivatives. It hasn't as yet determined whether materials which it will produce from the alfalfa raw material will be sold directly or through the now-subsidiary Chlorophyll corporation.



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Watford Chemical of Great Britain has set up a Canadian subsidiary, Watford Chemical (Canada) Ltd. It will build a plant near Toronto, and will produce fatty acids of a type, it says, never previously produced in Canada.

St. Joseph Lead stockholders have approved a change in the company's charter to allow it to expand into the oil production field (CW, May 31).

• The company has now signed a contract with Continental Oil covering the drilling of 11 exploratory oil wells.

FOREIGN.

Pharmaceuticals: Construction of E. R. Squibb & Sons' \$2.7 million pharmaceutical plant in Istanbul, Turkey, is nearing an end. The U.S. parent firm is handling both sales and personnel organization.

Squibb's idea is to export the necessary raw materials to the Istanbul plant where they will be processed and packed to be shipped for export to Near Eastern countries. Turkish trade circles are skeptical of the Eastern export possibilities however, as they anticipate extremely heavy tariffs on these finished materials; Turkey herself levies high duties on goods coming from the Eastern countries.

• **Netherlands:** The NV Chemische Fabriek Naarden, producers of oils and essences for the perfumery, cosmetics

and foodstuffs industries, brings its number of foreign subsidiaries to ten with the establishment of two new branches in France and Japan. The French branch in Paris will be known as SA Naarden (France), the Japanese branch in Tokyo as NV Chemische Fabriek Naarden (Liaison Office Japan).

• **Aluminum Ore:** British Secretary of State Oliver Lyttelton has opened negotiations with the premier of the African Gold Coast for the construction of a \$420 million dam project as a means for exploiting the tremendous deposit (225 million tons) of bauxite on the Gold Coast. In the belief that about one million tons of bauxite could be processed each year into 210,000 tons of aluminum, a plan has been proposed to build a dam across the Volta River and to install a hydroelectric plant to supply the necessary power.

LABOR.

Union Minus Members

The fact that a union loses its members doesn't mean that the union also loses its certification, the NLRB now rules in holding that United Mine Workers District 50 committed an unfair labor practice early this year.

One year ago, the AFL Operating Engineers Local 910 was certified by NLRB as bargaining agent for the 19 production workers at the Chattanooga oxygen plant of National Cylinder

Gas Co. Six months later, most of those employees turned away from the AFL and joined the UMW.

• **S.O.S. from A.F.L.:** When the company refused to recognize UMW as the new bargaining agent, District 50 sponsored a strike. The Operating Engineers filed an unfair labor practice complaint, and the NLRB stopped the strike.

Now, the NLRB trial examiner has ruled that the strike was a violation of the Taft-Hartley law. He said the withdrawal of a majority of members from the AFL union did not nullify the Engineers' certification. In such a situation, the company was bound to refuse recognition to UMW until the one-year certification expired.

• **No Sleep, No Horseplay:** Some 600 employees of the Ethyl Corp. in Baton Rouge, La., lost their suit against the company when District Judge G. Caldwell Herget found that the men were not entitled to \$500,000 for alleged overtime. The workers complained that they sometimes were called to work before the end of lunch periods; that they weren't allowed to sleep during lunch period; that they weren't permitted to eat lunch away from the plant; that sports weren't permitted during lunch period; and that "horseplay" was forbidden. The judge said evidence was that: (a) workers received extra pay or extra time off whenever they were called to work early during lunch period; and (b) that the naps which they didn't want disturbed were taken not during lunch period but on work time. The ban on horseplay was a "fair restriction," the judge said, adding that mature men's horseplay sometimes leads to physical combat.

• **Company Riposte:** In the CIO International Union of Electrical Workers' civil suit against Westinghouse over closing of the Bowling Green, Ky., plant last Dec. 4, the company retaliated by filing a counter-claim for \$500,000 damages. The case is due to be tried next Nov. 13 in U. S. District Court at Bowling Green. The company said it closed the photo flash bulb plant because "illegal work stoppages . . . decreased production, increased operation loss, exerted economic pressure." Union leaders called the closure a lockout, but got nowhere in appeals to the Kentucky Division of Unemployment Insurance and the National Labor Relations Board.

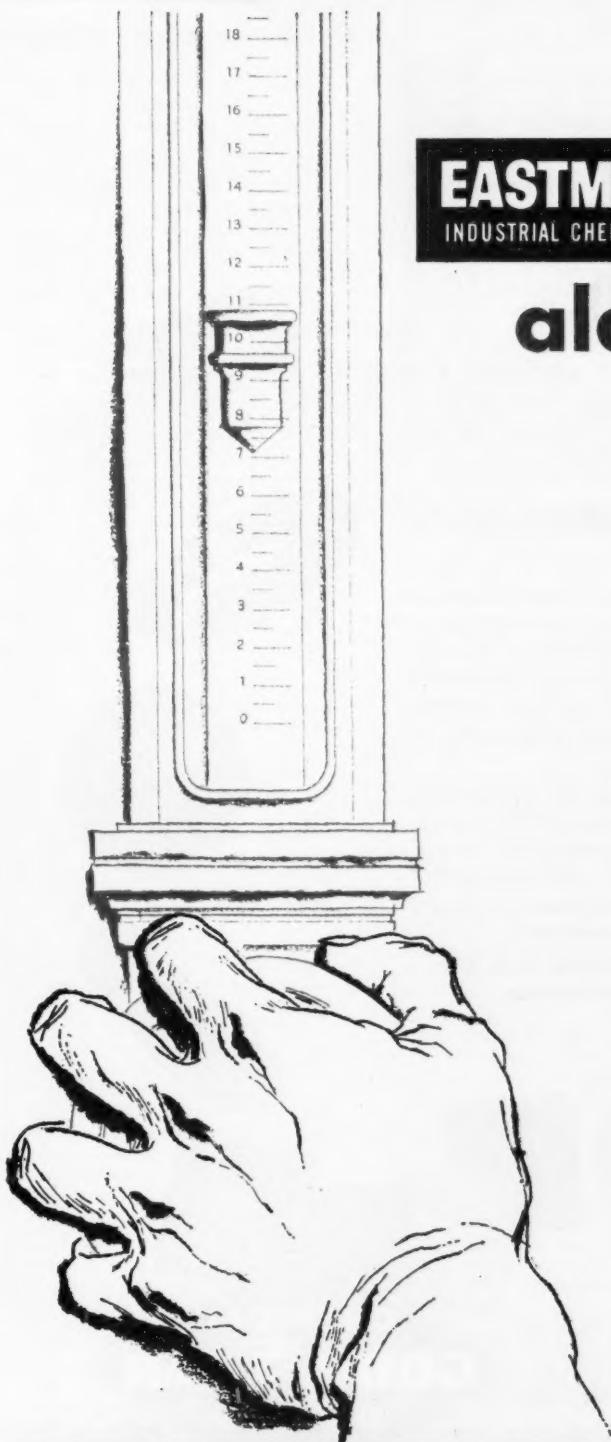
• **Wage Drive in Canada:** International Chemical Workers Union (AFL) points with pride to six new con-



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HUNDREDS OF DRUMS of glycerine are being turned out each month at the Naarden Chemical Manufacturing Corp.'s plant in the old fortified town of Naarden, in the castle region

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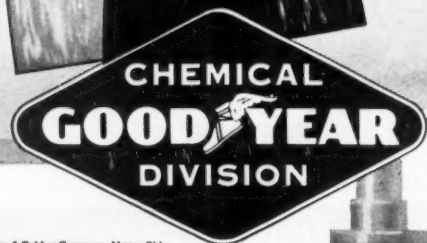
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tracts providing for wage increases for locals in Canada. Pay rises were reported as ranging up to "approximately 25%" at the Merck plant at Valleyfield, Quebec. Other Canadian plants granting pay rises: Johns-Manville, Highland Creek, Ont.; Laurentian Laboratories, Montreal; G. Tamblin, Ltd., Toronto; Sherwin-Williams, Montreal; and Lowe Brothers Paints, Toronto.

Using Front Door Again: The 1,400 CIO Textile Workers who spurred the front door of Johnson & Johnson's pharmaceutical plant at New Brunswick, N.J., in the first strike in J&J history, went back to work last week after winning nearly all their demands. To the J&J employee-relations program, which includes letting employees come to work through the front door, now have been added such fringe benefits as a 5-day sick leave, a full day's pay for an employee who is injured on the job, and company liability on employees' cars on plant-to-plant trips on company business.

Atom Wages Stay Put: With pay rates averaging \$1.85 an hour, 1,000 production workers at Oak Ridge (Tenn.) National Laboratory have accepted a new two-year contract that provides for an "improved" pension plan but no wage increase. The workers are represented by the AFL Atomic Trades & Labor Council; Carbide & Carbon Chemicals Corp. operates the plant for the U.S. Atomic Energy Commission.

They're Out Again: The fourth walk-out in five weeks at the Indiana Ordnance Works near Louisville, Ky., came when 120 members of Sheet Metal Workers Local 110 (AFL) left their jobs to protest a referee's finding in a jurisdictional dispute. However, the strikers did not set up picket lines, so other craftsmen rehabilitating the huge powder plant kept on working. Du Pont will operate the plant for the Army.

Hammermill Pay Up: If the Wage Stabilization Board approves the second one-year agreement between Hammermill and the International Brotherhood of Paper Makers, about \$120,000 will be added to the million-dollar payroll of the plant at Erie, Pa. The pact includes a 2¢ across-the-board pay increase, six paid holidays instead of four, and certain job adjustments.

Citizens Charge Distortion: When United Mine Workers' District 50

sent representatives to Berea, Ky., to try to organize the approximately 150 persons employed by Berea Rubber Company, some 63 citizens formed an association "to support economic life and improve-employee relations" in the town. Charging that union organizers "distort facts" when they talk to workers, the spokesman for the citizens' group said his association was not anti-union but would try to give local employees "a true presentation of facts."

Who Makes the Smog

Eight companies with chemical plants near Louisville, Ky., have chipped in \$50,000 for a survey to put the finger on the parties most responsible for air pollution.

Three other firms with factories in the Rubbertown district southwest of town declined to join in the plan. One of the three (Bond Brothers, cross-tie creosoting) said it was installing new smoke elimination equipment. The other two (Aetna Oil and Ford Motor) said they were certain their plants were not offending.

No One Escapes: The new state law on air pollution authorizes Jefferson county and the city of Louisville to form a city-county air pollution commission with jurisdiction over the entire county. This catches Rubbertown, which formerly escaped regulation because it lies outside the city limits.

Promising that the survey's findings would be made public regardless of what plants are deemed "guilty," the companies announced that the 10-month sleuthing job would be undertaken by Battelle Memorial Institute of Columbus, Ohio, with Richard B. Engdahl as supervisor.

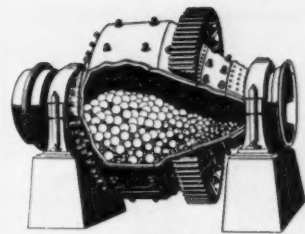
Twenty portable testing stations will be set up in various parts of Louisville to run a continuing "qual & quan" analysis of the sooty particles that have discolored the city's blue skies into a kind of tattle-tale gray—not to mention white shirts.

'Like a Polecat': Louisville citizens welcomed the move as a step toward purging their atmosphere of its less aesthetic components. One West End resident, speaking about the tainted gales in his neighborhood, commented:

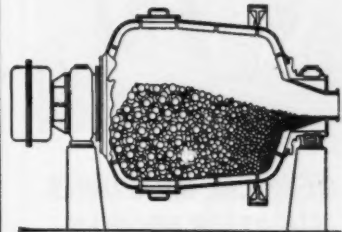
"Sometimes it smells like a polecat out here."

But Engdahl, a veteran of some two dozen such testing programs since he joined Battelle in 1941, was not overly impressed with the Louisville smoke screen. Upon arriving, he glanced around, then remarked:

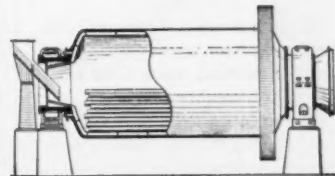
"Well, I've seen worse. This doesn't compare with the Los Angeles smog."



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Gently and Softly

Operations in the Office of Alien Property, which were speeded earlier this year by the threat of a Congressional investigation, probably now will be slowed as a result of a switch in administrators.

Rowland F. Kirks, dean of the National University school of law, who early last week was named by Attorney General James McGranery to replace Harold Baynton as OAP administrator, will tread gently and softly until he gets to know his job.



OAP's KIRKS: A gentle start.

As yet, it's too early to tell whether there will be any fundamental policy changes in OAP. Kirks, however, thinks of himself as a temporary government employee—he received only a leave of absence from his university post.

This would indicate that policies until election time will be of a stop-gap nature. But while a temporary appointment may be well and good for an administrator, it isn't conducive to the well-being of such concerns as General Aniline & Film or General Dyestuffs, the chemical firms still under OAP's thumb.

What's Past: One concrete accomplishment of Baynton's rule was the sale of Schering Corp. to a financial syndicate (CW, Mar. 15), though some Washington observers say this occurred when it did primarily to allay investigation.

This probe of OAP—on Senator Alexander Wiley's charge that it is a "super gravy train"—is supposedly just in the offing. And notwithstanding the truth or error of such allegations, one thing was clear to the new attorney

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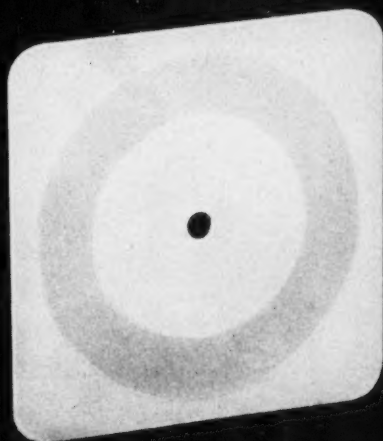
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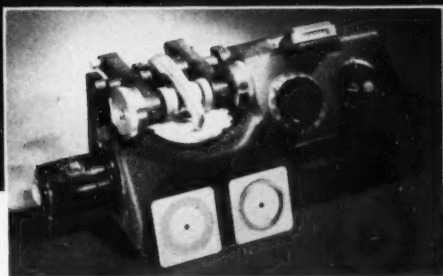
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general—Baynton was a political liability since, if nothing else, he had enemies on Capitol Hill.*

Actually, McGranery was rushed into calling for Baynton's resignation. He had been attempting to get replacements for Baynton and two other assistant attorneys general. Of the proposed replacements, only Kirks had accepted, but all three had to be dismissed after one of the other two tried to resign before being fired.

But whatever the Washington angle, the real brunt of past and future delays has, and will, fall on GAF and GDC administrators. To them, the perilous seas of corporate independence (CW, May 3) are preferable to being politically awash.

KEY CHANGES . . .

Cary R. Wagner: To chairman of the executive committee, board of directors, General Aniline & Film Corp.

John B. Caldwell: To director, American Metallic Chemicals Corp.

Arno L. Zinke: To president, Mid-States Gummed Paper Co., subsidiary of Minnesota Mining & Mfg. Co.

Jack C. Varley: To president, James Varley & Sons, Inc.

David F. Marsh: From the School of Medicine, West Virginia Univ., to executive vice president and co-director, The Transandino Co.

John G. Bill: To director, Sharp & Dohme, Inc.

Henry W. Gadsden: To director, Sharp & Dohme, Inc.

Stuart T. Henshall: To vice president, Sharp & Dohme, Inc.

C. E. Webb: From superintendent, services, to assistant vice president, manufacturing, Sharples Chemicals Inc.

Robert H. Coerdts: To vice president, Cleveland district, Reichhold Chemicals, Inc.

Ralph H. Manley: To managing director, General Mills Research Labs.

James M. Darbaker: From general manager of sales, to director of distribution and availability, United States Steel Co.

Owen A. Moe: To manager of technical sales service dept., General Mills Research Labs.

* The investigation may have another point of interest: Baynton has been considered a protégé of Nevada's Pat McCarran, who, as a member of the Senate Rules Committee, approved the investigation.

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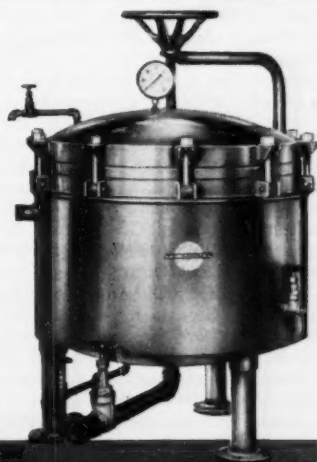
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RESEARCH

Water-Soluble, Water-Repellent

Industrial chemists will soon be getting a look at a new silicone chemical out of General Electric's Waterford (N.Y.) laboratories. It's sodium methyl silicate, touted by GE as "one of the most interesting silicone products yet produced."

Basis for GE's exuberance is the commercially unique combination of water-solubility and water-repellency possessed by the new silicone.

From the look of things, sodium methyl silicate's industrial fortunes are firmly hitched to this seeming physical paradox. Its major proposed use is as a masonry water-repellent. Because of its water-solubility, the new silicone—unlike most silicone products—can be incorporated with concrete during the mixing. Conventional surface application also is effective.

GE says another point of difference with respect to many other silicones is sodium methyl silicate's ability to render limestone and gypsum water-repellent.

Tagged SC-50 in the company's silicone line, the newcomer's potential field of application isn't limited to masonry treating. Research at Waterford points up its possibilities as a water-repellent for textiles, paper products and powdered materials. It's also useful in the preparation of water-repellent silica aerogels and as an additive to improve washability of water-base paints.

Silicone water-repellents for masonry are hardly new or revolutionary. Dow Corning has had one—its XR 129-G resin—on the market for about two years. And Linde Air Products Co.'s C-25 silicone masonry water-repellent has enjoyed a good deal of popularity with specialty formulators.

Still Unique: But SC-50 is still unique in its own right. Both Dow Corning's XR 129-G and Linde's C-25 are condensed, higher-molecular weight polymers made up as organic solvent solutions. SC-50 is, for the most part, a water solution of the unassociated silicate.

Although GE will be first out with a sodium silicate for the masonry field, others have toyed with the idea. Linde, for one, had a good look at sodium salts of silicic acid, never went beyond the research stage.

Linde, understandably, isn't telling why. But silicone researchers, familiar with the sodium salts, wonder how GE gets around possible drawbacks to widespread utilization of these mate-



IMMERSION TEST highlights a potential market for SC-50 as a water-repellent for pipe insulating materials. Bobbing on the liquid surface are three treated blocks of calcium silicate. Untreated chunks rapidly waterlog and sink.



HOLLOW MASONRY hydrostatic test pier, filled with stained water, gage the effectiveness of SC-50 as a basement moisture-proofer. Leaky control pier 15 is in sharp contrast to treated, and unstained, companions.

rials on masonry. Two of these: Water solutions of the sodium salts have a high pH, could be hazardous to spray operators; and their highly alkaline

nature suggests corrosion problems with certain types of masonry.

Production, at any rate, doesn't look like much of a problem. Sodium me-



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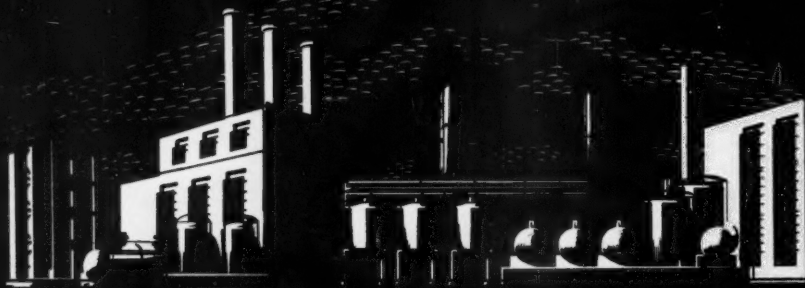
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IN THE PILOT-PLANT, purity of SC-50's active ingredient—monosodium methyl siliconate—is assured by centrifuging followed by pressure filtration. Commercial production is slated for sometime in the fall.

thyl siliconate can be made from basic chlorosilanes with caustic or soda ash. Just how GE does it is still pretty much the secret of its Waterford pilot-plant.

But the product, an amber liquid containing 20% silicone solids, is freely available for experimental scrutiny. Conspicuous by its absence from

the masonry water-repellent picture, is the lone remaining member of the silicone Big Four—Plaskon Div. of Libbey-Owens-Ford Glass Co. But the chances are that Plaskon will be heard from. Just when, is anybody's guess. The company's plans in the masonry field hinge on the outcome of research now in progress.



Winning Cortisone Team

THE UPJOHN CO. (Kalamazoo, Mich.) researchers, responsible for the company's new cortisone microbiological oxidation process (CW, Apr. 12), gather for a well-deserved pat on the back. As a result of their work, Upjohn already has dropped the pre-

vailing cortisone price by 20%. The chemical-biological team (left to right): L. M. Reineke, R. H. Levin, D. H. Peterson, Marian H. Leigh, A. Weintraub, H. C. Murray, P. D. Meister. Not shown, but equally deserving are S. H. Eppstein and R. Edwards.

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RESEARCH

Purity for Exchange

Rohm & Haas Co. (Phila., Pa.) is out with a new analytical grade of its recently unveiled Amberlite IR-112 cation exchange resin. A nuclear sulfonic acid-type material, the new exchanger's potential industrial use is based on three attributes: high purity; high chemical resistance; and high porosity.

Applications aren't hard to visualize.

The new resin (IR-112-H) could probably be used to advantage in operations involving adsorption of basic materials from aqueous and organic solutions, recovery of metallic complexes, extraction of large cations and catalysis of various types of organic reactions.

More specifically, its marked porosity, and consequent rapid reaction rate, suggests IR-112-H for a number of sugar refining and food processing jobs. A few: removal of amino acids from sugar solutions and syrups; catalysis of sugar inversion; absorption of amine odors; and removal of metallic contaminants from milk, fruit juices, wines, etc.

As a catalyst for organic reactions, the new exchanger is a potential rival of mineral acids in esterifications and the synthesis of acetals. And in essentially the same vein, it makes a good carrier for the mercurous ion and other metallic catalysts.

Talent for Recovery: In metal recovery processes the resin's talents may prove of value in separating rare earth metals, recovering complex ions and scarce metals from plating baths. Other possible uses for the analytical Amberlite are in solvent purification, vitamin extractions and amino acid separations. It also makes a good carrier for alkalis.

And don't overlook water-softening. Rohm & Haas says the exchange capacity of the resin (1.2 to 1.5 milliequivalents per milliliter of resin) coupled with its efficient regeneration characteristics are strong points in its favor as a water-softener. Conversion to the sodium form, by treatment with a dilute solution of sodium chloride, sets the exchanger up for this job.

More expensive than straight Amberlite IR-112, the new resin's commercial future depends upon the extras it offers in a number of industrial ion-exchange applications. Fischer Scientific Co. will supply small quantity (up to 25 pounds) demand for the product.

Ultior Motive: Consolidated Water Power & Paper Co. (of Wis.) has just contracted with Iowa State College



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Defoamer ED licks a variety of foam problems. Here's one example: the lifetime of a single bubble on the surface of a paint containing 0.3% Defoamer ED was found to be less than one second. A number of com-

mercial defoamers in the same paint gave bubble lifetimes averaging between two and three minutes. Satisfactory paints have been prepared with a 0.1% concentration of Defoamer ED.

Defoamer ED is a stable liquid mixture of high molecular weight esters. It is now available in commercial quantities.

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"KARBATE" TOWERS do more than retard corrosion — they eliminate it entirely from such processing operations as absorption, fractionation, evaporation, extraction, scrubbing, and many others. Furthermore, the widespread acceptance of impervious graphite for all types of corrosion-free process construction has resulted in the manufacture of monolithic tower sections and fittings in sizes to 24" I.D.

For example, the tower illustrated here incorporates the following standard components: *bottom section* with gas inlet, liquor outlet and support grill; *intermediate section* with hand hole and packed with carbon Raschig rings; *short intermediate section*; *top section* with "Karbate" feed assembly and wier plate distributor; and *cover* with gas outlet. All sections and fittings, including spring-loaded tie rods and heavy-steel pressure plates, are available for quick assembly to your specifications.

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RESEARCH.

for a two-year study of the usefulness of torula yeast in hog feed supplements. Consolidated would appear to be stepping slightly afield of its normal operations. But the move is logical in the light of the sulfite pulp industry's attempts to cut down stream pollution.

The yeast process, for treating sulfite wastes, is one of the best ways yet discovered to cope with the pollution problem. Its high cost is the only hitch. Consolidated's idea is to defray part of the expense by developing agricultural markets for yeast. Rhineland Paper Co., which is supplying yeast for the Iowa State research, has the only American yeast-process plant for treating spent sulfite liquor, sells most of its yeast to feedstuff manufacturers.

Hardly Competitive: After two years of experimentation, Gulf Oil Corp. researchers have produced a minute sample of an insecticide that would cost an estimated \$18 million a pound. The mystery substance? Radioactive pyrethrins for an investigation of insecticidal mechanisms.

Here's how it was done: Pyrethrum plants were grown for 56 days in a small airtight greenhouse containing an atmosphere of radioactive carbon dioxide. Mature flowers were harvested, dried, ground and extracted with solvents. Yield: less than one gram of the "hot" insecticide.

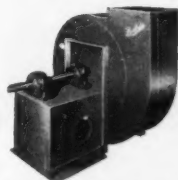
Basic Integration: Department of the Army has just established a new research committee to integrate the various facets of the Army's extensive research and development program. The new group will advise and assist the Army's chief of research and development and the assistant chiefs of staff in the overall planning, coordination and supervision of the basic research program. It will also make recommendations on matters of policy procedure and programming of sponsored research. Lloyd E. Swearingin, on leave from University of Oklahoma, heads the new committee.

Tire Aid: A new carbon black that is reported to add 20% to 30% to the service life of tire rubber is the news from Columbian Carbon Co. (New York, N.Y.). The new carbon, trademarked Statex 125, can be worked into tire tread compounds in the usual way and on customary rubber fabricating machines. Current production is going into tires for high-power automobiles. Later this year, output is expected to be high enough to supply general demand for wear-re-

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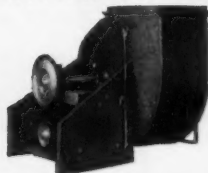
With the complete line of "Buffalo" centrifugal, axial flow and propeller fans, you can pick your fans to pin-point specifications! You can pick the right fan for the volume desired—for pressure to be encountered—for the conditions of heat, moisture, cold, abrasion or corrosion expected. And with every "Buffalo" Fan, you get that careful engineering and construction that always means a satisfactory job. For the exact results you want, look to "Buffalo", First for Fans.

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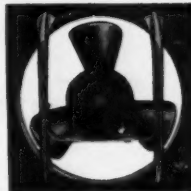
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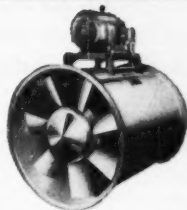
BELTED VENT SETS

Compact, "package" fans for duct or free-air delivery. Non-overloading. Bulletin 3720.



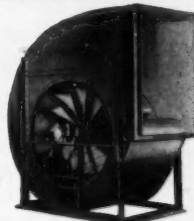
BREEZE FANS

Easy-to-install wall fans. Durable and very economical. 6 sizes. Bulletin 3222-F.



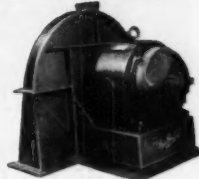
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For light-duty ventilation and air conditioning service. Compact, non-overloading. Bulletin 3533-C.



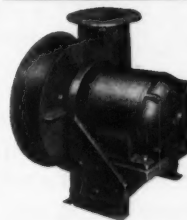
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For large-scale ventilation. Quiet non-overloading. Sizes up to 500,000 c.f.m. Bulletin 3675.



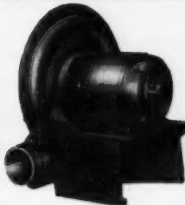
TYPE "CC" PRESSURE BLOWERS

In sizes for pressures up to 4 pounds and capacities up to 75,000 c.f.m. Bulletin 3553-A.



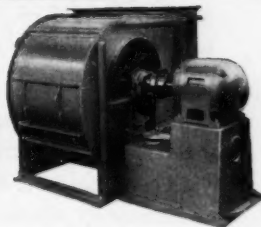
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FIRST FOR FANS

PROGRESS REPORT

#2

Dateline . . .

CIBA, TOMS RIVER, N. J.

This is the second in a series of pages published by Ciba to acquaint industry and the public at large with its expanding facilities for production and service.

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"CIBA TOMS RIVER" will be the most modern plant of its kind. Upon completion, it will become a headquarters for Ciba's greatly expanding production of vat colors. Through these facilities, Ciba will help to meet the needs of dyers . . . and their customers in the textile and converting trades . . . for more dyes of a class that is distinguished for its exceptional fastness to light and washing.

In the photograph above, you see the present advanced stage of construction at this new Ciba plant in central New Jersey.

What cannot be seen among the brick, stone and steel is the key force that has been at work here from the beginning . . . the vision and energy that sparks the progress of all American enterprise. In this progress Ciba is proud to have its products and services in the fields of pharmaceuticals, plastics and auxiliaries, as well as dyestuffs, take a significant and growing part.

Measured in terms of more and better products for the markets Ciba serves . . . measured, too, in terms of more jobs, increasing purchasing power within the area, fine working conditions and constructive community relations . . . Ciba management believes that "Ciba Toms River" will be an asset to the national economy from which durable contributions may be expected to the nation's continued growth, prosperity and strength in peace and war.

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RESEARCH.

sistant automobile and truck tires.

Accounting: More than \$150,000 in research grants has been allocated to colleges, universities and scientific institutions by Research Corp. (New York, N.Y.) during the first quarter of 1952. Projects in 52 research organizations have received this support.

New Tracer: Tracerlab, Inc. (Boston, Mass.) is now offering urea, labeled with radioactive carbon-14, on a commercial basis.

In the Works: Plans for a \$1-million addition to Union Carbide's Electro Metallurgical Div. Niagara Falls (N. Y.) research laboratories have been helped along by a major NPA allocation of controlled materials for the quarter beginning July 1.

Right Combination: A new grade of thermosetting laminate which combines high arc-resistance with good mechanical and chemical properties has been developed by Synthane Corp. (Oaks, Pa.) Synthane calls the new plastic G-8, says it offers a considerable cost-saving compared to continuous filament glass base material whose electrical properties it appears to equal. In addition to electrical applications, the new laminate is promising for certain uses in the plating and photographic industries.

Basic Exchangers: Two new ion-exchange resins are available from Permutit Co. (New York, N.Y.). They're Permutit S-1 and S-2, are highly basic anion exchangers capable of removing silica from water down to concentrations as low as 1 ppm.

Analytical Advance: British researchers have developed a rapid, accurate procedure for separating 2,4-dichlorophenoxyacetic acid (2,4-D) in a mixture of chlorinated phenoxyacetic acids. It's based on a separation by partition chromatography on a kieselguhr column and titration of the carboxylic acid groups.

Patent Conversion: Ethyl Corp. has recently been awarded a patent (U.S. 2,571,987) on a method of converting hexamethyl, hexaethyl, hexapropyl and hexabutyl dilead to the corresponding tetraalkyl lead compounds in the presence of silica-type catalysts.

Between O C and 110 C nearly quantitative conversion of hexaethyl dilead to tetraethyl lead was obtained. Between 0.2% and 5% (by weight of hexaethyl dilead) of catalyst is used; reaction is completed in 5 minutes.

June 28, 1952 • Chemical Week



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PRODUCTION

On-the-Spot Oxygen In the Spotlight

Two newcomers throw the spotlight on firms that make oxygen generators as they all vie for chemical customers.

The goal, of course, is to reduce costs by eliminating the transportation charges for purchased oxygen.

Spencer will make its own for a new process, expects to pare ammonia production costs by six percent.

The question of purchased vs. "home-made" oxygen has never, in the past, been a particularly perplexing one for chemical companies. There's been but one school of thought on the matter; it's held that it is quicker, easier and—in the long run—a lot cheaper to buy it from someone who knows the business. It's a sound line of reasoning too, for making oxygen is a tricky, specialized art that calls for a lot of know-how.

But the canny chemical customer has always realized that when he is spending money to buy oxygen, he is shelling out a large portion of it to cover the costs of hauling the product to his plant. That's why Joy Manu-

facturing Co. (Pittsburgh) caused a stir when it decided to turn out complete, semi-portable oxygen units (CW, March 1). Eyeing a juicy \$50-100 million market for its machines, Joy said it would turn out four models with capacities ranging from a half to twelve tons a day, promised users savings of 60-85% on their direct costs excluding amortization.*

More recently, the H. K. Ferguson Co. (Cleveland) made a move on the same market. It bought the process and patent rights of the Elliott Co. covering tonnage oxygen plants (CW, June 7). Ferguson will make the plants

* Conservatively trimmed in its advertising copy to a flat "up to 50% of your oxygen costs."

available on a turn-key contract basis, adds that it visualizes plants that will produce more than 1,000 tons a day.

Actually, however, neither Joy nor Ferguson is the first in the field and both are due for some stiff competition from those who are already well established. That would include Air Products (Emmaus, Pa.), Superior Air Products (Newark, N.J.) and Independent Engineering (O'Fallon, Ill.). All three agree that the publicity is giving their industry a deserved shot in the arm and are happy to bask in the limelight. But though they concede that Joy and Ferguson have "good cycles," each thinks his own just as good—or better.

In the Act: Other firms also have showed interest in the idea of making units to provide "captive" oxygen at one time or another. An English firm, Petrocarbon, Ltd., for example, last fall brought processes to this country for use in small and medium sized oxygen-nitrogen plants (*Chemical Engineering*, Sept., 1951). The consensus here, though, is that Petrocarbon will have a tough time meeting prices for competitive American machines.

Both Elliot and M. W. Kellogg, after working on government projects for transportable oxygen units during the war, were eager to make commercial units for a while afterwards. Elliot has dropped out of the picture altogether through its transaction with Ferguson but Kellogg is still interested although it has not built any commercial units.

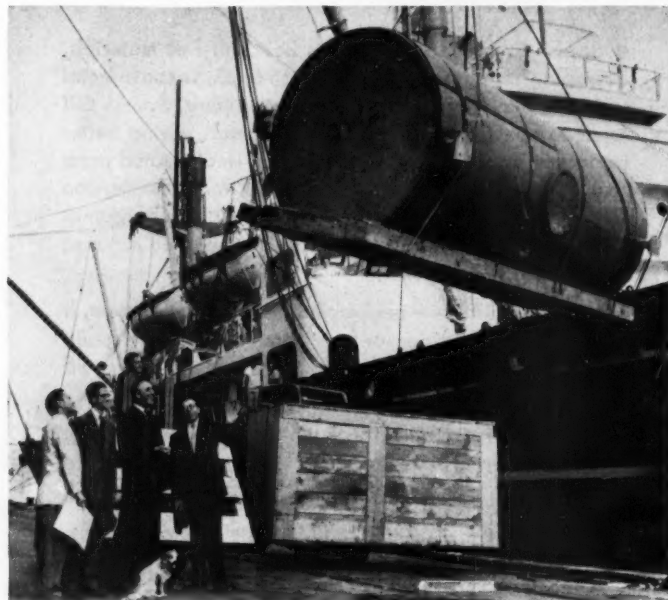
Right now, Air Products is unquestionably the major factor in the field. Incorporated in 1940, its early work was devoted to government projects too; it has been in the business in a big way since 1946.

Air Products boasts that it is building about 90% of all the oxygen generators now being manufactured. It turns out twelve standard sizes ranging in output from 300 to 12,000 cu. ft. an hour. In addition, it will build bigger ones to order.

To get the smaller users interested in its machines, Air Products prefers to lease them rather than to sell them outright. That way, it figures:

- It assures the customer he won't be saddled with a capital investment for a unit that will be too big or too small eventually. With the big units, of course, Air Products can't afford to do it that way.

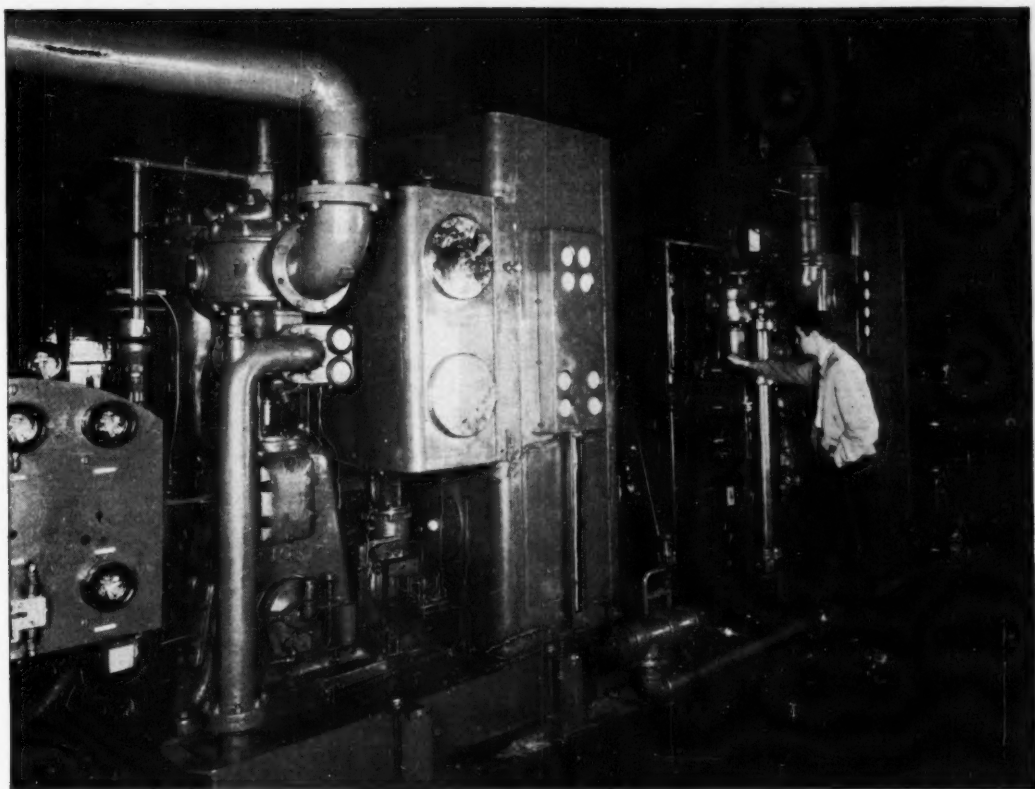
- It gives the customer a feeling that Air Products is a "partner" in the



Chemical Prefab Takes to Sea

THE PORT OF BOSTON witnessed a rare sight recently when Chemicals Export Co., operator of the foreign department of American Polymer, loaded a complete chemical plant aboard the SS Alphaca for Santos, Brazil. From there it will be hauled

overland to Sao Paulo where the buildings that will house it have already been built. The plant will produce synthetic resin emulsions for Polymer Produtos Quimicos do Brasil, S.A. a newly formed American Polymer subsidiary.



You don't buy compressed air in bottles... WHY BUY YOUR OXYGEN THAT WAY?

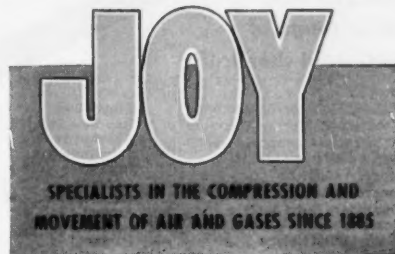


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You don't need to depend upon rented equipment or outside sources for your oxygen supply now. Buy your own Joy "OX" unit and pocket the savings—*running as high as 50%.*

In one way or another, Joy Oxygen Generators obsolete all other oxygen supply methods. Each size unit is compact, space-saving and completely automatic... producing high-purity (99.5+%) oxygen practically unattended, and easily cared for by your regular air-compressor or power-plant personnel. It's clean, too; no messy chemicals to handle and no residues to remove—the only raw material used is AIR.

What's more, Joy Oxygen Generators are inherently safe, operating at the relatively low pressure of 185 psi maximum, with the further insurance of pop safety valves and an automatic shut-off system. • The complete line includes units with capacities ranging from 500 to 12,000 cu. ft. per hour. For the *modern* way to oxygen-supply, write us your requirements. **Joy Manufacturing Company, Oliver Bldg., Pittsburgh 22, Pa.**



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oxygen end of his business. Although Air Products makes it clear that its generators are "no harder to run than an air compressor," it feels that many users are loath to be left on their own with a complicated machine they really don't understand.

• The small user doesn't have to put up a big capital investment that he must amortize over a long period of time. By leasing a unit, he can deduct the fee as an operating expense.

In There, First: Superior Air Products, however, can lay claim to being a pioneer in the industry. It has been making oxygen units since 1929 and for a long time was the only one in the field. Currently, it is offering units ranging from 100 to 10,000 cu. ft. per hour.

Independent Engineering has also been in the business for some time—since 1937. Although Independent reports that almost all its sales in the past have been to companies whose business has been selling oxygen as such, it notes that interest among chemical companies has perked up. During the war, it worked closely Drs. Collin* and Keyes of the National Research Defense Council.

Face Lifting: In any case, the reason for all the activity and the interest among chemical companies is easy to spot. Ferguson says that oxygen combined with natural gas opens up a new source of supply for chemicals, gasoline, fuel oils. Provided the oxygen can be made cheaply enough, few experts will disagree with the statement. For example, it could play an important role in making acetylene in the Southwest by the Sachse process. Cheap oxygen could, in fact, change the face of whole segments of the chemical industry.

And according to Air Products, a step in that direction has been taken already. For Spencer Chemical will use a \$1 million oxygen-nitrogen generator for use in conjunction with its new \$15 million ammonia plant in Vicksburg, Miss. By the move, Spencer estimates that it will pare its production costs by as much as 6%.

The Air Products generator will separate 180 tons of oxygen (98%), 310 tons of nitrogen (almost 100%) daily; the ammonia plant will produce about 200 tons a day. Spencer will use the oxygen to oxidize natural gas to carbon monoxide and hydrogen; and another oxidation of the monoxide with steam will produce more hydrogen. The hydrogen thus formed will

team up with the nitrogen to make ammonia. Developed by the Texas Co. the process will get its first commercial tryout for the production of ammonia, although a similar process is being used by Carthage Hydrocol for synthesis gas.

Fair Dealing: The question as to which company makes the units to produce the cheapest oxygen is extremely nebulous. As Frank Pavlis, technical sales director for Air Products, puts it: "The thermodynamics of oxygen production are well established and Mother Nature has given us all a pretty fair deal."

But in a field that fairly defies economic generalizations, one thing

stands out: Beyond a certain requirement for oxygen, it's a lot cheaper to use it where it's made. That's why some of the big oxygen makers have indicated a trend toward more smaller, decentralized plants. And that's why, it isn't at all unusual to find a big oxygen user practically in the backyard of an oxygen producer's plant.

It doesn't mean, of course, that the big oxygen makers will be driven out of business. They offer technical services, flexible supplies, and know-how that is hard to beat. It does mean that a lot of chemical companies will have to pause when they ask the question whether to buy their oxygen or make it themselves.

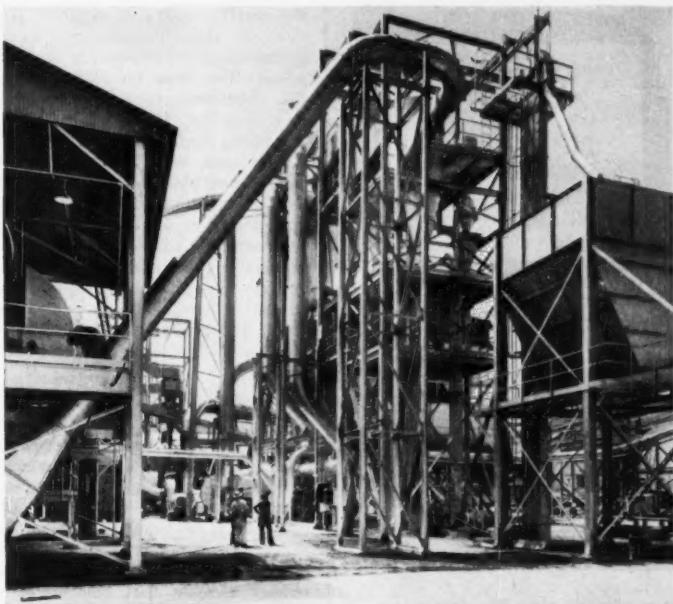
Engineered for Efficiency

Automatic control and mechanized handling have halved the normal manpower requirements for diatomite production at the new Lompoc (Calif.) plant of Great Lakes Carbon's Dicalite Division. The plant came in at an opportune time for process industry consumers too, for by last week, the Lompoc plant of Johns-Manville, its chief competitor, was still strikebound. An outdoor plant, it's described by Dicalite as "the most highly mechanized one in the diatomite industry." The main feature is an automatic, centralized control system that monitors all process steps. When trouble occurs any place in the plant, an

alarm system picks it up, immediately shuts down all affected operations. Moreover, all materials handling has been mechanized except loading of box cars, and eventually Dicalite plans to streamline that also.

By building an open-air plant, Dicalite figures it pared construction costs and at the same time helped solve the dust problem. But as an extra safeguard, it has put in an elaborate dust control system with a centrally located, plant size "vacuum cleaner" to reduce dust inside and out.

Timed Right: The Lompoc plant represents a 70% boost in diatomite capacity for Dicalite and the company



DICALITE'S PLANT: An opportune opening for process consumers.

* A professor at M.I.T. Collins is widely respected in the trade. While consulting for Arthur D. Little, he developed a process which is the basis of the units made by Joy. The latter is now operating under an A. D. Little license.



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Outstanding among Oklahoma's great variety of mineral resources readily available for chemical manufacturing is a tremendous reserve of high grade Silica, in several forms:

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NOVACULITE. Outcroppings of more than 100 square miles in southeastern Oklahoma are a continuation of the outcrops in southwestern Arkansas where Novaculite has been produced for many years and where chemical analysis shows Silica content to be 99% or more.

VEIN QUARTZ. Large deposits of milky variety are accessible.

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TYPICAL ANALYSIS OF PLANT-RUN GLASS SAND FROM ARBuckle MOUNTAINS

SiO ₂	99.87
Fe ₂ O ₃	0.03
Al ₂ O ₃	0.04
CaO.....	0.01
MgO.....	0.01
L.O.I.....	0.08

100.04

Detailed information on Oklahoma's mineral resources is available on request, based on data by the Oklahoma Geological Survey. Map showing location of mineral deposits is also available. Send for your copy today.



Make **More Money**
IN OKLAHOMA

PRODUCTION

is proud of the fact that instead of the anticipated six weeks shutdown run, it took only eleven days to get the first shipment out. It was good news for customers as well, because diatomite consumption has quadrupled since 1931 and during that time only one other major plant has been built (Eagle-Picher's near Clark, Nev.). Dicalite has a backlog of orders covering more than three months' production, including full capacity of the new plant. Johns-Manville, similarly loaded with orders, has been minus production at Lompoc since Mar. 17 because of a strike.

Last year nearly 300,000 tons of diatomite were used by the process industries. Major uses: filter aids to speed up clarification of chemicals, pharmaceuticals and food products; extending and flattening pigments for protective coatings; as an insulating material; and as a paper aid (small amounts added as filler speed production and improve quality). At the current rate of consumption, the Lompoc reserves of diatomaceous earth—the largest developed deposit in the world—should last at least 115 years.

M.C.A. on Safety: Ohio-Apex and Atlas Powder are slated to receive the first Lammot du Pont safety awards at the M.C.A.'s annual meeting in White Sulphur Springs (W.Va.) this week. Originated last year to perk up interest in industrial safety, the awards will be given every year for the next ten years to members that show the biggest improvement in accident frequency rates for a two year period. The basis for comparison is the three-year period immediately preceding that. Ohio-Apex took honors among firms with less than two million man hours exposure; Atlas, among firms with more than two million hours. In an other effort to step up interest in safety, M.C.A. gives certificates of achievement to plants of member companies that have gone through the previous calendar year without a time-losing injury. And last week, 183 plants got certificates for 1951, a sizable increase over 1950's 159.

EQUIPMENT

Liquid Detective: A new photoelectric sensing unit for detecting the presence—or absence—of a liquid in piping has been developed by Wm. R. Whittaker Co., Ltd. (Los Angeles). The system places no obstruction in the line, does not use moving parts. It works on a sensing element that consists of a refracting cylindrical prism built into one wall. Presence or absence of

liquid causes an alteration in the path of the light travelling between the prism and a set of voltaic cells on the opposite wall and the message is instantly relayed to the control panel.

Whittaker says the system can be connected to operate valves or pumps in automatic liquid systems, adds that it will work on clear or translucent liquids under pressures in the 0-200 psi. range.

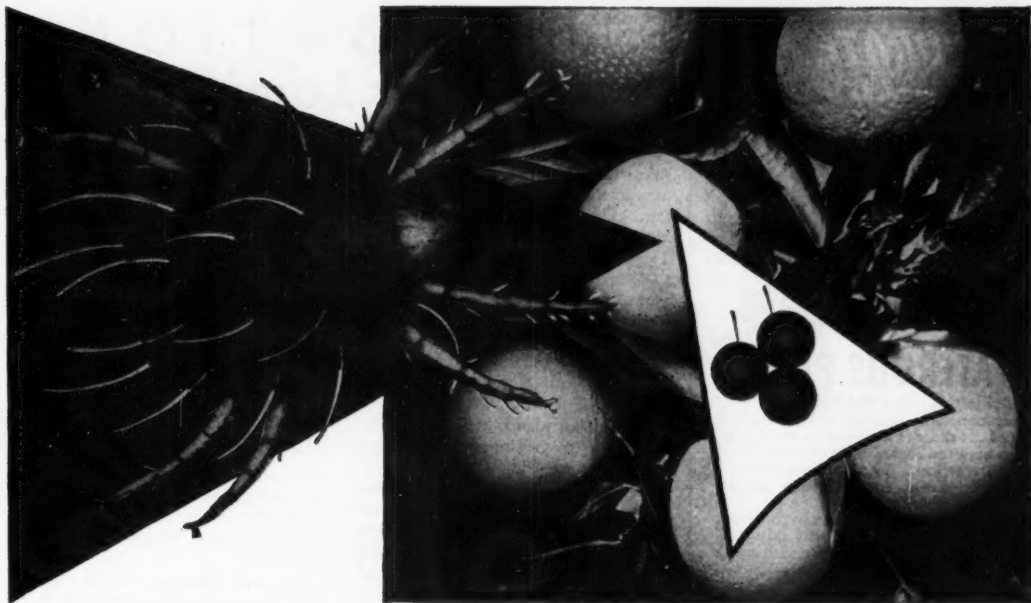
Plastic Fittings: Carlon Products Corp. (Cleveland) has just introduced "ell" and "tee" plastic couplings to aid in making sharp turns or take-offs from flexible plastic pipe lines. The company figures that the new fittings will be able to do the job that three or four of its other fittings did. For use in conjunction with plastic pipe, the fittings can be installed with a hand saw, screw driver and stainless steel clamp in less than two minutes, according to Carlon. They can be used with metal pipe or fixtures by means of an insert adapter.

Hard Rubber Pump: American Hard Rubber Co. (New York City) is now making the Jabasco flexible neoprene impeller pump in hard rubber casings. It reports the pump can withstand inorganic acids, alkalis, solutions of metallic salts. Said to be suitable for either thin or viscous liquids, the pump delivers 15 gpm. at 22 ft. head, 5 gpm. at 72 ft. Maximum capacity is 16 gpm. at 95 ft. head.

Phase Computer: Beckman Instruments (South Pasadena, Calif.) reports it is now producing a phase equilibrium computer, says it should prove valuable to petrochemical and petroleum processors. Beckman claims it simplifies vapor-liquid calculations and, in the hands of a technically trained operator, can do more work in a fraction of the time required by usual methods. It states also that a non-technical man can use it to solve flash equilibrium equations in three or four minutes instead of the hour and a half required by a skilled engineer using trial-and-error calculations.

Packaged Air Conditioning: Kathabar Division of Surface Combustion Corp. (Toledo, Ohio) is introducing a packaged unit for humidity conditioning that delivers air in the range of 32 F. to -110 F.

Purity Control: A new German-devised, automatic determination of phosphine in acetylene hinges on passage of the gas through an oxidizing solution, measuring pH change.



Kolker Announces Full Commercial Production of **K-101** for Mite Control

After two years work in pilot plant operation, Kolker swings to full production of K-101 (p-chlorophenyl p-chlorobenzene sulfonate) to meet heavier demand for this new and remarkably effective acaricide.

Actual field tests and commercial applications in California orchards have proved K-101's extreme effectiveness . . . its potent residual and ovicidal actions where mites threaten citrus and grape crops, cotton, walnuts, almonds, peaches, figs, plums and prunes. Another large use is in the field of ornamentals, nursery stock and evergreens which are attacked by many species of mites.

K-101 is available to insecticide manufacturers interested in formulating emulsions and dusts. It is compatible with a large range of insecticide materials.

K-101 is effective against a long list of mites including European Red, Citrus Red, Atlantic, Pacific, Willamette, Six-spotted, Two-spotted, Brown Almond, and Clover mites.

Call on KOLKER for technical assistance, delivery and price data.

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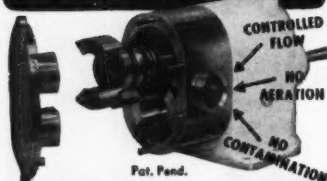
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DISTRIBUTION... Mandate for Laminate

Aluminum Laminated

National promotion without national sales—that's the twister on the newest idea in the field of one-trip containers for industrial products: laminated aluminum and kraft drums.

This apparent anomaly comes from the divergence of intentions on the part of the two companies who worked together in the new drum's development. Kaiser Aluminum & Chemical Sales Co. would like to sell more aluminum foil, is talking about the drums in "institutional" ads designed to spread the idea that Kaiser is glad to cooperate with anybody having a fresh idea involving aluminum.

Behind the Rockies: But the firm actually making the drums, and owner of the key patents, is currently manufacturing them on only a 100,000-unit-per-month pilot line. Pacific Steel-fiber Drums of Alhambra, Calif., has a choice of several possible moves for its next expansion step. One would be to build up the Alhambra operation to full-scale production, although this would soon saturate the West Coast market potential. More attractive is the possibility of an Eastern manufacturing plant, operated either by Pacific Steelfiber itself or by a licensee.

Indications are that the last choice is the most likely. Both Kaiser and Pacific Steelfiber are getting many an overture from Eastern drum manufacturers who think they have spotted a hot development.

Pacific Steelfiber estimates that a suitable plant would cost about a half million dollars, is now negotiating with several licensee prospects.



MULTIPLE WALL: Two times six equals twelve.

Paste and Roll: The idea behind the drums is simple. Inert, water-proof aluminum foil is glued to 18-point kraft linerboard, and the resulting sandwich is wrapped continuously into a six-ply cylinder of the desired diameter. With a total of twelve laminated layers, the drum body compares favorably in strength and freedom from leaks with the steel sheeting normally used in single-trip drums.

But the big advantage is weight and price. A tenth of a pound of aluminum and one pound of paper combine to replace four pounds of steel. Even in the five- and fifteen-gallon sizes now being made experimentally, the cost savings are in the 15%-25% range. Pacific Steelfiber estimates that the larger sizes can realize a saving of 50%-60%.

Top and Bottom: Closing in the ends proved to be a difficult task. In fact, leakage problems around the seals were the reason for killing the idea when it was tried during World War II as a steel-saving measure. Credit for removing this stumbling-block is given to Forrest Perriguet, research and development vice president of Pacific Steelfiber. His present production utilizes sheet-steel tops and bottoms, attached with his patented seal in the chime.

Field tests now in progress are mainly directed at the petroleum oil and lubricating grease markets. Given the same rough-and-tumble treatment to which their steel cousins are subjected, the drums stand up well.

Their highest score has been on spot



PERRIGUET: With his seal in the chime, a ringing success.



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potash division

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DISTRIBUTION.

leakage, a factor which opens wide the door for possible usage in the transportation of paints, vegetable oils, chemicals, and other liquid or semi-liquid materials which need an inert, moisture- and vapor-proof container.

With aluminum back into easier supply, it is not inconceivable that before long aluminum-and-fiber drums will take a healthy bite out of the 40-million unit market for metal barrels and drums. Nothing would make Kaiser and the other aluminum producers happier, and Pacific Steel Fiber, with a choice of building Eastern plants or licensing other producers, is in a comfortable driver's seat.

Familiar Blue Pages

This month, as they have every month since June 1932, readers of chemical industry publications have paused to read a two-page insert advertisement printed on pale blue paper, as familiar as the telephone book's yellow pages.

U.S. Industrial Chemicals, celebrating the twentieth anniversary of its unique advertising campaign, can note with pride that the fivefold increase in inquiry response experienced over the years is a clear indication that its

newsy notes are falling on fertile soil.

One feature of "Chemical News," in addition to its longevity, is that products other than USI's are frequently mentioned. The other manufacturers are not mentioned by name, however, but reader inquiries are passed along to them. This policy puts USI's blue pages in a class by themselves—with one shot it builds goodwill and business for USI and its products among both consumers and fellow manufacturers.

Freedom of Choice: The International Raw Material Conference has just had 2,000 tons of Canadian newsprint thrown back in its face. Muscle-flexing West German publishers didn't like Canada's high price—decided to buy some cheaper paper from Scandinavian sources. The buyers' market is getting international.

Drums and Drums: Over 90% of all national production of steel shipping containers is included in a new directory of drum and pail manufacturers published by the Steel Shipping Container Institute (New York City).

In Four Colors: Another landmark for drum users is the first commercial use

of the Rheemcote four-color lithography on containers being manufactured by the Rheem Manufacturing Co. (New York City). Rohm & Haas has taken advantage of the medium to decorate its Dithane fungicide drums with a colorful display of garden vegetables.

Organic Peroxides: Cadet Chemical Corp. (Buffalo, N. Y.) can now be listed as a source of both benzoyl and lauroyl peroxides. The former, in a 35%-active-ingredient formulation with an inert filler, will be designated as Cadox BCP.

Sacks that Sell: Industrial multiwall sack users who want to carry their sales promotion effort right to the customer's warehouse can now take advantage of a free package design service being offered by the Hudson Pulp & Paper Corp. (New York City), the world's biggest producer of household paper napkins.

Plastic Wraps: The Dewey and Almy Chemical Co. has established a Chicago headquarters for Midwestern coverage by its Cryovac Division, which specializes in packaging food with a Saran polymer film.

Soft-Pedal Promotion

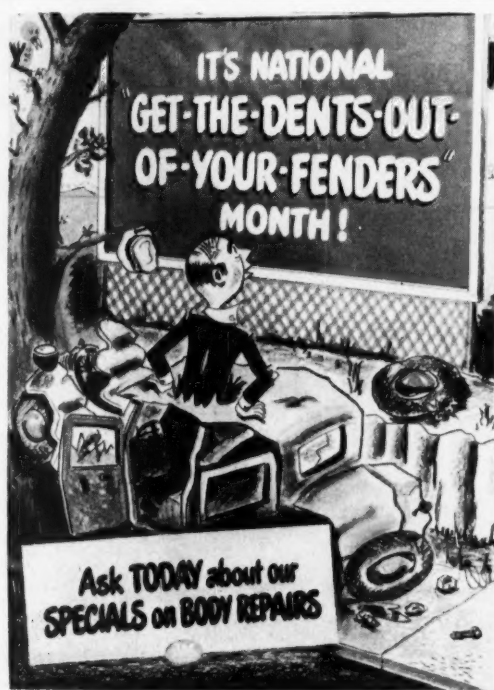
IF YOU LOOK closely at the poster to the right, you will find—possibly to your surprise—that this month's "Get-the-dents-out etc." publicity has been launched by a staunch member of the chemical process family—none other than the equally long-named Minnesota Mining and Manufacturing Co.

But no 3M ad man is in danger of being fired for this apparent violation of proved promotion principles—the playing down of 3M's part in the program was all part of the plan.

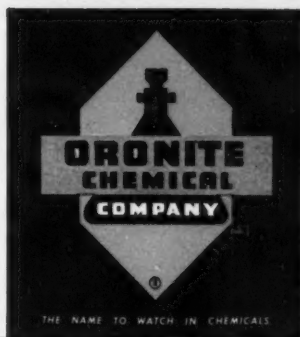
Biggest immediate beneficiary of the month-long publicity push would be, of course, the nation's automobile service and repair industry. What's good for the thousands of garages and shops around the country, however, is mighty good for the 3M company, which supplies them with masking tapes, coated abrasives, calking cement, and adhesives.

Having decided to use the "special month" technique to bolster this summer's sales effort, the 3M publicity men enlisted the support of most of the automobile manufacturers and car service trade associations. So far as the public is concerned, this combined group is promoting the "Get-the-dents-out" message as a public service—helping the motorist to protect his capital investment and preserving for the nation its private motoring reserve.

But in order to maintain such an approach, it was necessary for 3M to back out of the limelight, even though it is doing most of the work. This is one case where hiding 3M's candle under a bushel is proving to be the best way to sell 3M products.



Where industry has the "need" Oronite Chemicals supply the way



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some are in short supply
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A partial list of **ORONITE PRODUCTS**

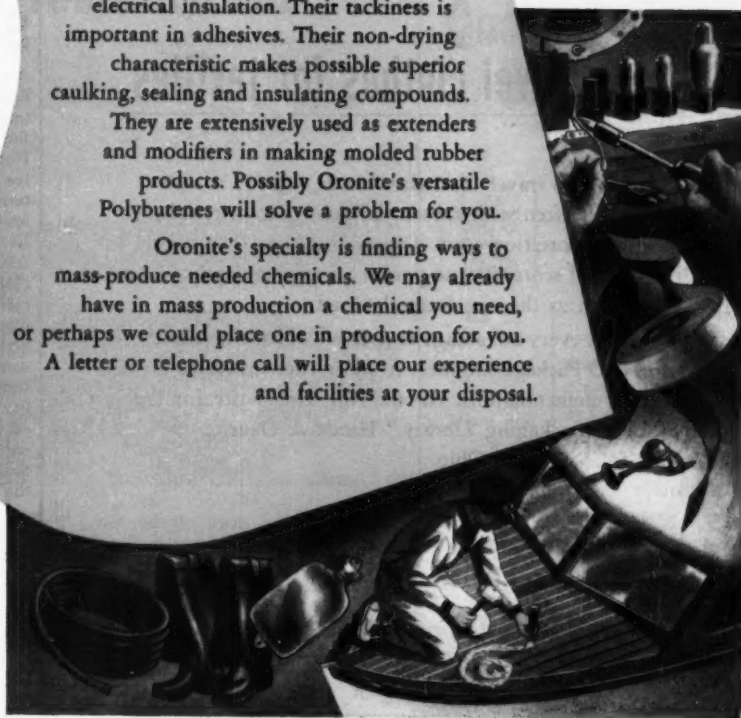
Detergent Alkane
Detergent Slurry
Detergent D-40
Detergent D-60
Wetting Agents
Lubricating Oil Additives
Cresylic Acids
Gas Odorants
Sodium Sulfonates
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Naphthenic Acids
Phthalic Anhydride
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Para-Xylene
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Hydroformer Catalyst

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Oronite's specialty is finding ways to mass-produce needed chemicals. We may already have in mass production a chemical you need, or perhaps we could place one in production for you. A letter or telephone call will place our experience and facilities at your disposal.

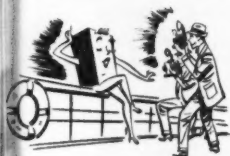


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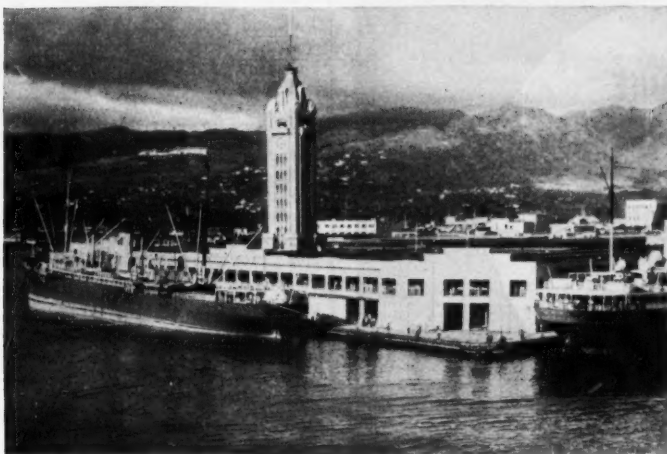
ADMIRAL O'NEILL: His letter-of-the-law ruling means . . .

Safety

Alaskan Delegate Bob Bartlett has his fingers crossed this week. With luck, and an assist from Delaware's Caleb Boggs, he is going to rescue from a House Merchant Marine subcommittee the bill which would permit his territory and Hawaii to resume normal imports of vitally needed dynamite. Ever since February 15 of this year, the ports of Seward, Alaska, and Honolulu have been prohibited from receiving more than 500 lbs. of the explosive per shipment. This is beginning to hurt, and it could get much worse. The limitation is capable of strangling the economies of the two territories, Bartlett's testimony warned the subcommittee, because not enough ships visit the ports to supply the need—even if every ship carried the full 500-lb. limit.

For genial Bob Bartlett, this disruption of territory affairs by an arbitrary ruling of the Coast Guard is just one more slap in the face after this year's delay on giving Alaska and Hawaii status as states. Although his people are directly affected by such federal actions, they still have no representative vote in Congress to help correct the situation.

Recommendation Obeyed: The territories got into this fix as a direct outgrowth of the South Amboy explosion in 1950. At that time the House Merchant Marine and Fisheries Committee made certain recommendations to the Coast Guard which were designed to prevent a recurrence of the disaster. No. 5 on this list was a suggestion that the Coast



TOO LITTLE DYNAMITE: Only 500 pounds per ship allowed at sun-kissed Honolulu (above) and snow-fringed Seward, Alaska (below).

without Representation



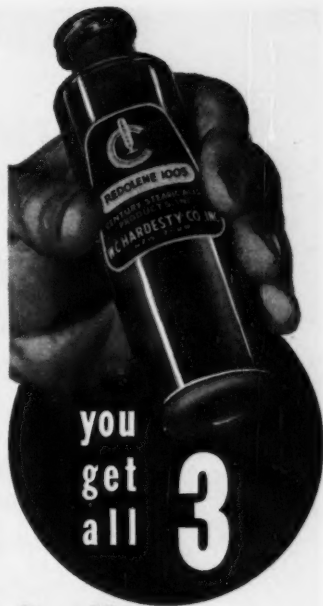
Guard use its "Table of Distances"—a sliding scale correlating safe distances with various quantities of explosives—as an absolute rule and not just as a rough guide. The Coast Guard, knowing which side of its bread is buttered, felt obliged to consider the "recommendation" as law, started enforcing the table immediately.

Because Seward and Honolulu have habited dwellings close to their docks, they automatically were limited to a 500-lb. maximum. Temporary legislation, expiring on Feb. 15, allowed the territories to "stock up" on dynamite, but ever since the grace period ran out, the Coast Guard's

commandant, Vice Admiral Merlin O'Neill, has made importers toe the line.

Early in the testimony concerning the new bill retracting the committee's recommendation, the admiral maintained that the limitations should be kept. He suddenly reversed himself, however, giving hope to Bartlett that his bill would soon become law.

It is the delegate's contention that the territories should be allowed to set safe limits for themselves, with a power of veto resting in the Coast Guard. Such cooperative effort at the local level would assure both maximum safety and minimum interference with territorial economics.



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BOOKS

Pulp and Paper, Vol. II, by James P. Casey. Interscience Publishers, Inc., New York, N.Y.; xvii+708 pp., \$15.

Whereas the first volume dealt with the chemistry of pulp and papermaking operations, this volume is concerned with the properties of paper and the basic paper-converting operations—such as pigment coating, printing, coating with resins and waxes, and saturation of paper with resins and waxes.

Handbook of Engineering Fundamentals, second edition, edited by Ovid W. Eshbach, John Wiley & Sons, Inc., New York, N.Y.; 1324 pp., \$10.

Revised reference book covering the various phases of engineering, contains rewritten sections on mathematics, thermodynamics, fluid mechanics and electricity. The new section on aerodynamics relates basic principles to the design and performance of aircraft.

Briefly Listed

THE CONSULTING CHEMIST AND CHEMICAL ENGINEER IN A WORLD ECONOMY, 32-p. booklet explaining the role of the consultant in today's business world and the relations to be set up between consultant and client for achieving best results. Numerous case histories are reviewed here. Ass. of Consulting Chemists and Chemical Engineers, Inc., 50 East 41 St., New York, N. Y. \$1 per copy.

MEETINGS . . .

Amer. Pharm. Assn., centennial meeting, Philadelphia, Aug. 17-23.

Amer. Inst. of Electrical Engrs., gen. meeting, Phoenix, Arizona, August 19-22.

Amer. Soybean Assn., annual convention, Purdue University, Lafayette, Ind., Sept. 9-11.

Amer. Chem. Soc., national exposition, Coliseum, Chicago, September 9-13.

Natl. Petroleum Assn., annual meeting, Traymore Hotel, Atlantic City, Sept. 10-12.

Packaging Mach. Mfrs. Inst., annual meeting, Homestead Hotel, Hot Springs, Va., Sept. 11-14.

Amer. Chem. Soc., national meeting, Atlantic City, N.J., Sept. 14-19.

Drug, Chemical, and Allied Trades section of N.Y. Bd. of Trade, annual meeting, Pocono Manor Inn, Pocono Manor, Sept. 25-28.

Amer. Tung Oil Assn., annual meeting, Admiral Semmes Hotel, Mobile, Ala., Oct. 8-10.

SPECIALTIES

Degreasing with Safety

Safety solvents—low-toxicity, low-fire hazard chlorinated grease solvents—are fast-catching-on chemicals with a market potential estimated at 10 million gallons per year.

Top consumers are manufacturers, users of electrical equipment, and the Armed Forces.

Only two makers are in the field now, but they're both expanding to meet the rising demand.

Expansion, nearly completed, or about to get underway, is the news this week for the makers of safety solvents. In Tenafl, N.J., Penetone Chemicals is finishing up enlarged facilities, and Fine Organics, Inc. (New York) is seeking plants in the Southwest and West for manufacture of the blends of chlorinated and petroleum solvents.

Industry and Armed Forces demand for low-hazard, low-flammability solvents has been steadily climbing since their recent introduction. One producer visualizes consumption yearly of 10 million gallons, for degreasing delicate electrical equipment as well as heavier-duty cleaning and application as a wax vehicle.

High Flash: These new products do burn, and they can be hazardous to personnel. But compared to common solvents, their flammability and toxicity are low; hence the trade term "safety." Fine Organics has several blends, one with an open cup flash point of 140F, another with a 190F flash point. Penetone lists its #602 solvent at 130F flash point. Stoddard solvent and mineral spirits flash about 100F, "white" spirits, 78F.

And compared to carbon tetrachloride, their toxicity is low. New York City's Board of Health made a blunt report this spring that at least 12 people had been killed as a result of carbon tet fumes in that city last year; and most authorities feel that seven hours exposure to 35 parts per million of carbon tet is dangerous. On the other hand, 200 ppm of these new products is said to be permissible.

But the advantages don't stop with safety. Makers claim the new solvent blends do a better job than perchlorethylene in degreasing fine electrical equipment since they don't harm insulation. They dry at least as fast as carbon tet, and in some cases faster. They've been shown to be no more likely to cause dermatitis than the commonly used compounds, and to be non-corrosive.

Another electrical application is coating parts with wax, using the solvents as carriers for the wax.

Mum on Manufacture: At present, neither maker of these safety solvents is saying much or how it makes its materials. The blends are not patented, and competition for sales is rough.

Probably the first items on this order of low-flammability, low-toxicity solvents were those put out by the defunct Gabex Co. (Nutley, N.J.), the development of John B. Moore, now with Fine Organics. Fine Organics started making them about two years ago, says that since the solvents have been available, they have climbed to 88% of FO's Aviation Industrial division sales—about the closest to a definite indication of present usage.

Penetone introduced its #602 this spring, and reports widespread interest has prompted its current expansion. Both companies are selling nationally.

Additional Outlets: Though the prime outlets for these safety solvents are industrial, there are some other angles that bear investigation. The Coast Guard has found them useful for below-decks degreasing; the Navy is considering them for cleaning submarine motors, which must be handled with great care, since they may be subjected to overload in life-and-death emergencies.

There is considerable use in aviation, for cleaning avionics equipment, high precision bearings and parts.

At present, neither maker of the solvents recommends them for household cleaning products, or for commercial drycleaning plants, where the solvents are often recycled for re-use. And in spot-removing ability, they don't match available products. There is some indication, however, that Penetone is working on these applications.

Gallonwise, the price of these compounds is just about competitive with perchlorethylene and carbon tet; Penetone's product sell for \$1.44 per gallon in drum lots, and certain of Fine Organics' about the same. Though these two have the business to themselves now, the lure of a market for 10 million gallons may well draw in others. At least one other company is believed to be planning to jump in.

SLY

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CW

SPECIALTIES.

Gloss with a Punch

Turning the problems of a locality into profit—that's the accomplishment of the Freewax Corp., Florida floor polish maker. The South's heat and humidity have been turned to advantage by Freewax, which is formulating a polish with lindane that controls insects as well as protects floors. Freewax, with a just-completed 10,000 sq. ft. plant in Sanford, introduced its new product last winter, and has since expanded distribution into 10 Southern states.

Development of the polish is the work of Irving Feinberg. He devised a way (patent applied for) to mix 0.5% of the insecticide lindane with a liquid wax, and with the assistance of his brother "J. M.," managed to raise the \$200,000 capital needed to start the Freewax Corp.

As distribution is being completed in the South as far west as Texas, the new plant is turning out 25,000 pints of wax per day. Irving Feinberg is handling production in the Sanford plant; "J. M." takes care of finances and sales from Tallahassee offices.

Double Duty: Floor coatings containing insecticides are not new. Another sort of a two-purpose floor gloss until recently has been made by Dianol Inc. (St. Petersburg). It's an insect killing wax containing a 3% combination of chlordane and D3 (dichloro diphenyl dichloroethane).

A product like this is usually effective (another one reportedly made use of parathion), but must be handled with care because of the toxicity of the insecticide. Feinberg says he tried over 3000 formulations before he worked out a product the USDA would permit him to label as harmless to human beings.

No Snap: In addition to formulation problems, Feinberg found it was no snap to put his product before the public. The Orlando, Fla., Sears, Roebuck store took Freewax on first, used judicious promotion and was soon moving more wax in two weeks than it had in a year.

Competing with better known, large-volume waxes has been rough. Freewax, selling at 69¢ per pint (\$1.19 a quart) is usually introduced city by city, mainly through newspaper promotion. Distribution on a national scale isn't planned immediately; for there is some doubt that a nationwide market for an insecticidal wax exists.

Poultry Perch Paint: Down Under, in Australia, the Hawkesbury Agricultural college has reported that formulations of BHC in paints for poultry perches eradicated chicken lice. Egg-

tain was absent except in cases where cerosote mixtures were used.

Another Australian note: Use of sulphate of ammonia fertilizer is said to have contributed to the high acidity of certain soils, and the Agriculture Dept. may alter its fertilizer recommendations.

In Canada, Too: Soil conditioners have invaded the Canadian market; Poly-Ack, the Wilson Organic (New York) product, is now offered in Toronto. In addition, Canadian Industries Ltd. will sell Loxar, a conditioner based on American Cyanamid's Aerotil, within a week or two.

New Factory: The Savogran Pacific Corp. has moved into its new \$120,000 factory and warehouse in Los Angeles. The company makes paint remover, paint brush cleaner, and household cleaners.

Floor Cleaner: The Beacon Wax Co. (Boston, Mass.) is introducing its new wax and dirt remover in the New England area. Devised to prepare floors for new waxing by taking off

old wax, the compound is available in half-pints, pints, and quarts, priced at 39¢, 65¢ and \$1.10 respectively.

Slow Burn Foam: Dow Chemical Co. has developed a new formulation of its Styrofoam, classed by the ASTM as a "self-extinguishing" plastic, designed for use in low temperature insulation. Tinted blue, the new material is tagged Styrofoam 33.

Plant Sprouts: Naco Fertilizer Co.'s \$650,000 fertilizer plant to replace the one that burned last November is now under construction at Ft. Pierce, Fla.

No Insect Haven: A new sanitary measure for garbage pails tabbed Pail-Pride is being marketed by San-A-Lizer Corp. (Los Angeles). It is a chemical formulation in cake form, designed for attaching to the bucket lid, to repel flies, roaches, etc., in addition to perfuming the region.

Profits Down the Drain: A new approach to the problem of clogged drains: Use enzymes which can ac-

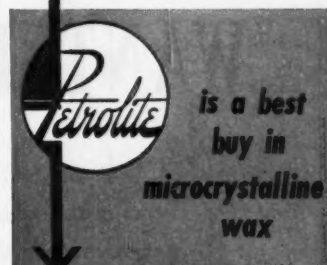


From Garbage to Garden

COMPOSTING GARBAGE into a soil conditioner and fertilizer is a swelling industry in Oakland, Cal. Compost Corp of America last week launched plans to build a new plant for converting municipal waste into it ComCo organic fertilizer with lab-cultured bacteria. Present facilities

process 50 tons of compost daily, which is sold for \$34 per ton; price on this, and home-garden product (100 lbs., \$4.65) should be cut when new plant comes in. ComCo also uses "trained bacteria" to speed decomposition of stubble in fields so next season's plowing is easier.

4 REASONS WHY



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Petrolite specifications are unsurpassed by those of any other microcrystalline wax. Your comparison is invited.

Petrolite CROWN	Melting Point °F	Pen. with 100 gms.	Color N.P.A.	Acid Number	Sapon. Number
* 23	180 min.	4 to 6	4 to 5	20-25	55-65
* 36	180 min.	5 to 7	5 to 6	30-35	75-85
200	190/195	10 max.	Br. to Bl.	Nil	Nil
500	190/195	10 max.	2 to 2½	Nil	Nil
700	190/195	5 max.	2 to 2½	Nil	Nil
1035	195/200	2 max.	2 to 2½	Nil	Nil
Jet Black	185 min.	11 to 16	Black	Nil	Nil

*Emulsifiable Waxes.

2 MANUFACTURE

Petrolite waxes are produced only by Petrolite, in the Petrolite refinery — a refinery designed solely for the production of high quality waxes.

3 RESEARCH

The Petrolite research staff carries on a continuing program in an effort to improve Petrolite waxes and their efficient use. These efforts ultimately result in better basic waxes which may help you improve your product—and gain additional profits.

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W52/3-1

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SPECIALTIES.

celerate bacterial decomposition of matter plugging the pipe, and liquidize fats, proteins, and starches.

Chemical Research Products, Inc. (Seattle, Wash.) is making cleaners to do just this, called Sea-Cal and Sea-Chem. Described as biochemical products, they are said to be non-caustic, non-poisonous, harmless to plumbing in overdose. They're not designed to dissolve petroleum greases.

Voluntary Cooperation: In response to Federal Trade Commission stipulations, two firms will tone down their advertising. The Silvaplate Corp., New York, has agreed to stop representing that its polishes will restore plated ware with coatings that wouldn't rub off. Dwarfies Corp. (Council Bluffs, Iowa) has promised not to advertise that Dwarfies 10-Vitamins contains all the vitamins required in human nutrition.

Prewax Cleaner: S. C. Johnson has another product in the auto specialties field: Car-Plate Cleaner. A suspension of cleaners in a solvent mixture, it contains no wax or polish, is used to ready the auto surface for waxing.

Fungicide: Nuodex PMO 10, a new phenyl mercury oleate fungicide solution for wood, textiles and cork, contains 10% mercury as metal, is now being marketed by the Nuodex Products Co., Inc. (Elizabeth, N.J.).

Ivy Aid: Lederle Laboratories (div. American Cyanamid) has decided upon the name for its zirconium-containing poison ivy ointment (CW, June 14), will call it Rhulicream.

On the Move: Farrell-Calhoun, Inc. (Memphis, Tenn.), paint maker, moved last week to a new factory and warehouse in Memphis.

Cosmetic Wax: A white wax made of higher alcohols and higher alcohol sulfates, called Ceramol, has been introduced by Aceto Chemical Co., Inc. (New York). It is designed principally for cosmetic products such as vanishing and dipilatory creams.

Polystyrene Adhesive: A pair of cements for bonding polystyrene has been developed by Chemical Development Corp. (Danvers, Mass.) CD Cement #1508 is for gluing polystyrene to a variety of plastics; CD #1509 for bonding polystyrene to itself.

Liquid Detergent: Ninol Laboratories (Chicago) is now selling a new high

SPECIALTIES.

foaming liquid detergent called Ninex 21. Recommended for controlled flow detergent dispensers, it is odorless, and thickens when water is added.

Floor Patcher: Das-Patch is a new fast-setting repair material for floors of concrete, brick and similar construction. Made by Dasco Chemical Co., Inc. (Baltimore), it is said to withstand loads such as found in industrial plants—as much as 20 tons—within ten minutes after application.

Powdered Bleach for Canada: Standard Chemical Co., Ltd., producer of Canada's largest selling liquid bleach, is introducing Javex Powdered Bleach for wool, nylon, silk, and rayon.

Lube Additive: Aerolube 51, a new inhibiting and detergent compound for boosting premium motor oil quality, is now sold by American Cyanamid.

Silver Braze: For brazing chromium carbide, cast carbides, and the like, Handy & Harman (New York) has introduced a new metal-joining composition called "EB" Silver Brazing Alloy.

Germfree Laundry: Essential Chemicals Co. (Milwaukee) has applied for a patent on a new laundry compound said to reduce the bacteria count in laundry 99% without use of boiling water. Exact composition and trade name have not been revealed.

Glamur vs. Glamorene: Hosid Products Inc.'s (Syracuse, N.Y.) legal battle (CW, May 17) to prevent Masbach, Inc. (New York) from distributing the rug cleaner Glamorene in New York state will be decided by the New York Supreme Court, where the suit has just been remanded by Federal Judge J. T. Foley.

Bonding Film: Minnesota Mining and Mfg. Co. (St. Paul, Minn.) is introducing a new adhesive, a yellow film 6 mils thick, tradenamed Scotch-Weld bonding film No. 588. A combination of plastics, it is transformed under heat to a heavy liquid, suitable for gluing phenolic resin table-tops to plywood bases, similar jobs.

PICTURES IN THIS ISSUE:

Cover (top) — Harris & Ewing Photo; Cover (bottom) — Reni Photo; p. 11 — Lionel Crawford, McGraw-Hill Photo; p. 20 — Wide World Photo; pp. 24 & 27 (top) — General Electric Co.; p. 40 (left) — Cal Pix; p. 40 (right) — Kaiser Services; p. 44 & p. 45 (bottom) — Wide World Photos; p. 57 — U.S. Rubber Co.

Tall Tale

Speaking of bouncin' recalls the time Cyclone Sue defied Pecos Bill on their weddin' day by trying to ride his horse. Got thrown so high she had to duck to miss the moon. When she came down a couple hours later, she lit square on her spring steel bustle and bounced back to the moon. Finally, after 3 days of bouncin', Bill relented and pulled the Gulf of Mexico over for her to land in. Caused a tidal wave that swamped Corpus Christi, but Sue came out gentle as a dove.

to Fabulous Fact

Pecos Bill never claimed credit for inventing the idea of absorbing motion in a body of water. Maybe he guessed the future usefulness of such fluid damping might be sadly limited by the fickleness of fluids. At low temperatures, they no longer flow; at high temperatures they thin out or evaporate.

Such frailties are not characteristic of Dow Corning silicone fluids. They maintain a more constant viscosity over a wider temperature span than other liquids. And, by so doing, they remove the age-old limitations placed on the usefulness of fluid damping.

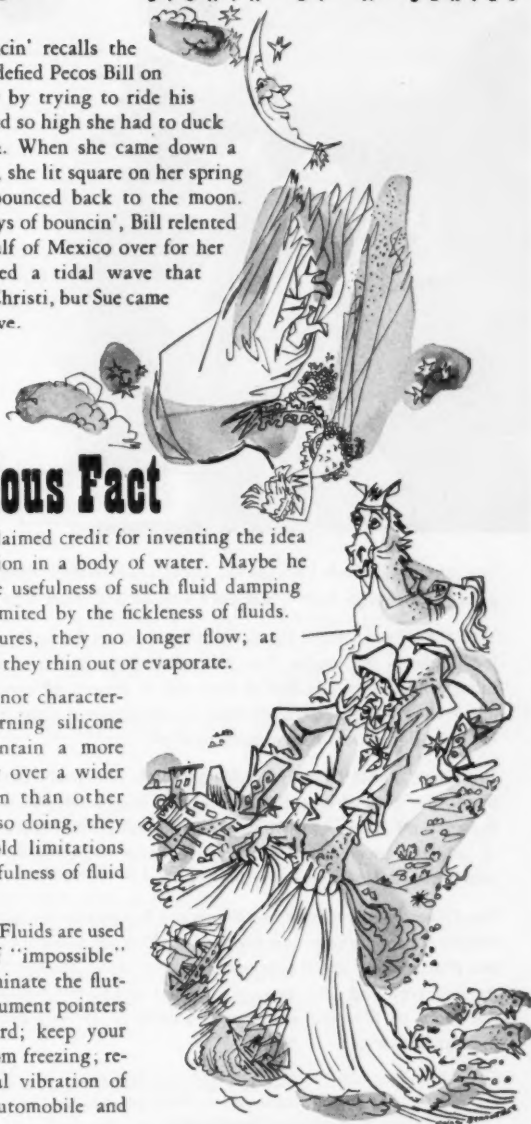
Dow Corning 200 Fluids are used to do all sorts of "impossible" things. They eliminate the fluttering of the instrument pointers on your dashboard; keep your car door locks from freezing; reduce the torsional vibration of crankshafts in automobile and diesel engines.

These and many other fabulous facts are described in our newest publication, "What's a Silicone?" We'll be glad to send you a copy. Simply address your request to Department BR-18.

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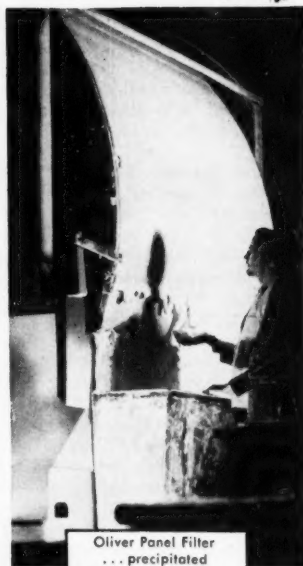


The jobs are difficult because the cakes are thin and sticky and almost impossible to discharge from a standard wire-wound drum type filter.

With the Oliver Precoat Filter, the solids form on the surface of a predeposited thick cake of permeable filter aid rather than on the cover itself. This cake, along with a very thin film of filter aid, is shaved off continuously by a slow in-traveling knife edge discharger which leaves a clean surface at all times for cake deposition. Flow rates stay high.

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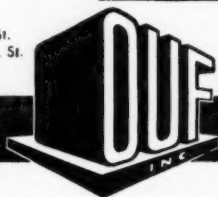
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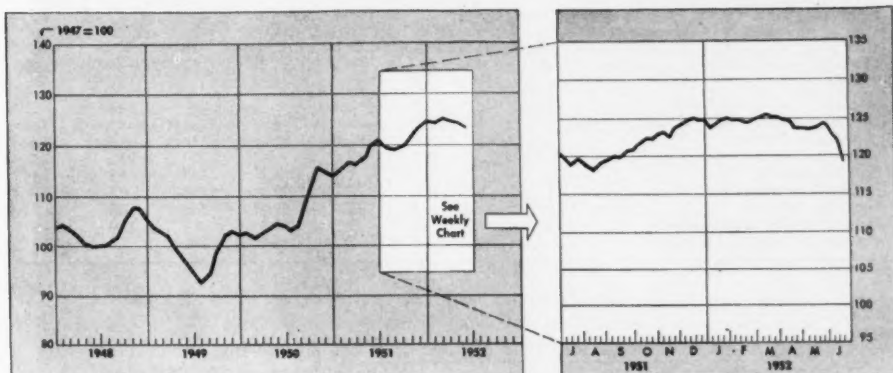
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MARKETS



CW Index of Chemical Output—Basis: Total Man Hours Worked in Selected Chemical Industries

MARKET LETTER

When naphthenic acid was freed of allocation controls last week, even CW (which had predicted the NPA action) was mildly surprised at the speedy fulfilment of its prognostication.

But it's no bet as to when zinc prices will stop skidding. Last week's decline (1¢/pound) brings the price of prime Western grades down to 15¢/pound—the third change this month. Zinc dust, oxides prices are being adjusted accordingly.

Still No. 1 reason for the tobogganing prices: Steel shutdown curbs galvanizing operations.

More anent production of plastics: 1955 should see more than double 1950 output—if DPA's new expansion goal (set last week) is hit.

The figures stack up like this:

- Capacity hope by Jan., 1955: 4.6 billion pounds.
- Actual production, 1950: 2.1 billion pounds.
- The difference—a whopping increase by 1955: 2.5 billion pounds.

Twelve types of plastics are included in the overall program; acrylates, alkyds, cellulose, cumarone-idenes, phenolics, plastic type nylon, polyesters, polyethylene, silicone resins, styrene, urea-melamines, and last (alphabetically), vinyls.

In Washington, International Materials Conference boosters and foes are switching facial expressions. A House-approved amendment this week which could literally force the U.S. out of IMC has "cons" smiling, "pros" pouting.

It was the other way around last week. The Senate (in its version) voted to permit the government to continue participating in world-wide allocations programs.

So look for a hot row when a Senate-House Conference Committee starts thrashing out the issue—provided, of course, the House passes the bill in its amended form.

Across the Atlantic: Rumors about sulfur have the Italian Ministry of Foreign Commerce hot under the collar this week. Word was

MARKET LETTER

WEEKLY BUSINESS INDICATORS

	Latest Week	Preceding Week	Year Ago
Chemical Week Output Index (1947=100)	118.0	119.4	121.0
Bituminous coal production (daily average, 1000 tons)	1,212.0	1,264.0	1,704.0
Steel ingot production (thousand tons)	252.0 est.	252.0 rev.	2,055.0
Stock price index of 14 chemical companies (Standard & Poor's Corp.)	245.6	244.6	235.6
Chemical process industries construction awards (Eng. News-Record)	\$10,201,000	\$67,725,000	\$8,795,000

MONTHLY INDICATORS—Foreign Trade (Million Dollars)

	Latest Month	Preceding Month	Year Ago	Latest Month	Preceding Month	Year Ago
Chemicals, total	68.2	80.1	82.6	19.0	23.6	31.3
Coal tar products	4.6	5.2	6.8	3.6	4.3	5.4
Medicinals and pharmaceuticals	18.1	22.2	25.1	0.0	0.3	1.0
Industrial chemicals	11.8	13.1	13.7	5.6	5.8	12.5
Fertilizer and fertilizer materials	3.8	3.3	3.9	8.2	12.4	11.6
Vegetable oils and fats, inedible	4.8	7.1	9.2	8.3	7.0	10.0

spreading that the agency would soon free sulfur exports to all destinations and abolish the export tax. The Ministry says it isn't so.

France: Some imported organic dyes are staggering under reimposition of the 30% customs duty; but the blow is lightened by the French Ministry of Finance decision to drop other dyes from the import duty list.

But all foreign trade eyes are on the U.S. Congress. The threat that the new Defense Production Act may set definite import quotas on any product which contains raw materials under priorities or allocation controls has foreign traders in a dither. Reason: Such quotas could well slam the door to American markets.

On the other hand, a rise in imports of key intermediate chemicals is what's worrying U.S. chemical manufacturers. A call to arms was sounded by Ambrose R. Chantler, president of the Synthetic Organic Chemical Manufacturers Association, at the annual meeting of the Manufacturing Chemists Association at White Sulphur Springs.

"The American market can anticipate increasing pressure from world surpluses," he says and adds the reason: Europe's chemical industry output is more than enough to meet European needs.

The latest industrial alcohol picture was filed in by the Bureau of Internal Revenue's production figures for Jan.-April, 1952. Total output for the four-months period was 83.9 million wine gallons.

There is no rushing demand for alcohol at the moment. This moderation in buying by consumers may be one reason alcohol fermenters have been able to hold out against Cuban blackstrap molasses producers.

The Cubans are still insisting on a 20¢/gallon price; alcohol (fermentation) producers think 10¢/gallon is plenty high enough (CW, May 17). Good bet: The Cubans will break first. Reason: Storage facilities in Cuba are reportedly filled; more than 100 million gallons of blackstrap are stored in U.S. (pending outcome of the price dickering).

Though diatomaceous earth consumers aren't exactly tearing out their hair yet, it's a cinch that lack of production from Johns-Manville (Lompoc, Calif.) is beginning to hurt.

The strike-bound plant normally accounts for nearly 50% of the nation's diatomaceous earth production.

SELECTED CHEMICAL MARKET PRICE CHANGES—Week Ending June 28, 1952

UP	Change	New Price	Change	New Price
Coconut oil, ref., Cochin, L.C.I.	\$.005	\$.18		
DOWN				
Quicksilver, 76 lb. flask	\$1.00	197.00		

All prices per pound unless quantity is stated

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MARKETS.

Synthetic Wags the Dog

Early next week, when the General Services Administration gives up its eighteen-month import monopoly of natural rubber, the casual observer might assume that the U.S. Government is retiring from active manipulation of world-wide rubber prices.

But indications are that GSA's shoes will soon be filled by another U.S. agency—the RFC. The latter's power will stem from its synthetic rubber plants, and sharing in the influence will be the American chemical industry, which created the synthetic capacity and someday will own the whole of it.

This turn of events, forecast by current straws in the wind, will amount to quite a turn-about for synthetic, the industrial process which had gone into the deepest of doldrums at war's end. It adds up to a clear cut case of the tail wagging the dog.

Tropical Trouble: Synthetic's new status is clearly underlined by the diplomatic pressure now being applied on the RFC concerning its domestic rubber price. Statesmen are warning that a decrease would directly cause economic and political earthquakes in troubled Malaya. In blunter words, this amounts to an admission that America's synthetic production is one of the key factors in the natural rubber market place.

Another symptom of the change is the complaint directed at Congress by the reclaimed rubber industry, which feels that synthetic's 23¢ per

pound price is unrealistically low. The reclaimers consider this to be unfair, subsidized competition; a better price, reflecting a reasonable after-tax profit, would be in the 28¢-31¢ range.

Bearish Tactics: For the hard-bitten rubber futures traders in London and Singapore, this all amounts to more of the same. For a year and a half their normally free market has been progressively beaten downwards by agents of the U.S. Government. The GSA is peacock-proud of its record as sole importer of the natural product, claiming that it has managed to cut the price by two-thirds and thus saved the American economy millions of dollars by the time it closes its books next Tuesday.

The tactics which GSA has used to accomplish this end give an insight for chemical buyers and sellers into the type of international market they will be bucking with their resurgent synthetic production.

When the Government stepped in on December 29, 1950, the going price for natural rubber was close to 80¢ per pound, representing nearly a fourfold increase under the hectic post-Korea bidding of rearming nationals. Combining the competitive bids of American industry and U.S. stockpiling efforts under the single head of GSA's Jess Larson took much of the steam out of the bull market. More was removed by the diplomatic moves which effectively slowed down rubber shipments to Russia and Red China.

The GSA was fighting for time—



MALAYAN RUBBER: Being baled for shipment into a depressing market.

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1. **Market Research Editor.** Experience should be in market research, commercial development, purchasing or sales.

2. **Engineering Editor.** Experience should be in production or process development. Chemical engineering degree is desirable, knowledge of processes and equipment is essential. Salary is open. Replies will be treated confidentially. Write to:

W. Alec Jordan

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Centrifugal 36"x40", Bird, Continuous, Consolidated Products, 18 Park Row, N.Y. 38, N.Y.

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Tablet Press, Stokes R, single punch, Consolidated Products, 18 Park Row, N.Y. 38.

Tanks—Glass lined steel storage, 3,000 gal. cap. Complete fittings, outlet valve, manhead, agitator. Briggs & Turivas, 141 W. Jackson, Chicago 4, Ill.

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MARKETS

confident that the price could be held down easily as soon as the domestic synthetic plants could be put on stream. This confidence is reflected in GSA's pricing policies during the period. In a sense, the agency took a commercial gamble which paid off.

Its first offerings to domestic buyers were at 66¢—representing a loss on every pound. But eventually its bearish maneuvers helped force the world price down, putting it finally into the below-30¢ bracket. GSA was now able to recoup its earlier losses. During June its price has been 38¢ per pound, giving GSA a neat profit on its current transactions.

No Bottom Yet: On July 1, GSA's artificial price will disappear and industrial buyers will immediately be able to buy at today's free market prices in the 25¢-30¢ range. But this does not represent the lowest level natural rubber is expected to reach. Chances are that it will eventually hit synthetic's 23¢ figure, and its future from that point, barring international chaos, will be linked to events in the chemical industry's new synthetic rubber boom.

Plastic Fashions

Out of Chicago last week came happy news for plastic manufacturers. One of the big features of this summer's International Home Furnishings Market is the growing importance of plastic upholstery in today's furniture design.

Industry observers who trudged up and down the sixteen floors of exhibits are making estimates that at least 15% of all upholstered items are now using plastic in some form—not counting chrome dinette sets. Inclusion of

the latter, which are almost 100% plastic seated, would push the figure up near the 50-50 mark.

The trend toward plastics is no accident. Manufacturers have been working closely with interior decorators to obtain colors and finishes which would eliminate the customers' major objections to such coverings. Typical development is this year's wide range of tweed effects—result of a tricky combination of embossing and printing. Other designs are meant to look like linen and monks cloth.

With their Chicago showing, the coated-fabric and film manufacturers are looking ahead to a prosperous year. In a poll of the group, 80% of the firms predicted gains of 5 to 30% for the second half of 1952 over the first two quarters. This optimistic feeling stemmed from the double assurance that both total furniture sales and plastics' share of the market are now on the up-swing.

Bright Spot: The market for Government needed products always gets a bit turmoilish this time of year as U.S. buyers rush to spend their last dollars before the fiscal year runs out on June 30. One oasis for harried chemical peddlers covering Government accounts this year, however, is the Chemical Corps Procurement Agency at Edgewood, Md. Forthright Col. Jim Batte, commanding officer of the agency, feels that his year-long effort to spread the requisitions evenly throughout the twelve month period has been almost a complete success. His buying office is experiencing only the mildest of a June rush. Chemical salesmen are wishing that there were more Col. Batte's around the country.

Government Needs

Navy Purchasing Office, 111 East 16th St., New York, N. Y.

Bid Closing	Invitation No.	Quantity	Item
July 8	883-B	39,500 lbs	Naphthalene flakes
July 8	890-B	50,000 lbs	Sodium sulfite
July 8	891-B	37,000 qts	Sodium hypochlorite solution

Business Service Center, General Services Administration, Region 3, Washington 25, D. C.

July 2	1D-14611	1980 jar	Paste, Office, Semi-liquid
July 2	1D-14611	480 tube	Paste, Office, Semi-liquid
July 2	1D-14611	3872 jar	Paste, solid

Government Awards

Corps of Engineers, U. S. Army, Philadelphia District, P.O. Box 8629, Philadelphia 1, Pa.

Item	Amount	Dollar Value	Supplier	Location
Foam making solution, fire exting., 5 gallon container	7000	44,000	Pyrene Manufacturing Co. 10 Empire Street	Newark 5, N.J.
Extinguisher, fire, carbon dioxide, 15 lb.	1038	27,870	Randolph Laboratories Inc., 8 East Kinzie St.	Chicago 11, Ill.

New York Quartermaster Procurement Agency, 111 East 16th St., New York, N.Y.

Repellent, insect, clothing, treatment, 45% Benzil Benzoate, 45% Dibutyl Phthalate, 10% Emulsifier, one gallon can	91240 gal	365,460	Wyandotte Chems. Corp.	Los Angeles, Calif.
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BOOKLETS

Chemicals

Plasticizers

14-p. bulletin discussing the firm's line of plasticizers and the part they play in the plastics industry. In explaining the vinyl industry to the reader, the booklet follows the production of a typical product from raw material to finished plastic. Pittsburgh Coke & Chemical Co., Grant Bldg., Pittsburgh, Pa.

Resins

16-p. technical booklet presenting application data and starting formulations for the use of "Neolyn" resins in adhesives, plastics, lacquers, and organosols. Noted here are the general properties of these resins, the specific properties of each of the seven resins in the Neolyn series, performance characteristics, and solubility data. Hercules Powder Co., Wilmington, Del.

Plasticizers

24-p. booklet listing specifications, physical properties, and performance data for the firm's various plasticizers and graphically reviewing the plasticizers' characteristics as indicated in testing for ultra-violet stability, heat stability, compatibility, viscosity, and specific gravity. Test methods and stabilizer data are also included. Emery Industries, Inc., Carew Tower, Cincinnati, Ohio.

Aldehydes

4-p. folder covering the specifications and typical uses of four of the firm's aldehydes. Tennessee Eastman Co., Kingsport, Tenn.

Paint Latex

8-p. technical data bulletin on the firm's "Latex 744-B" offers paint manufacturers preliminary suggestions on the method of making paint and recommends the types of alkyds to be used with this latex. The compound's properties are listed along with starting point formulations. The Dow Chemical Co., Midland, Mich.

Equipment

V-Drives

44-p. catalog of fractional horsepower V-drives, drive parts and accessories, contains descriptions, listings and price data on the firm's line of bushed type and fixed bore type V-pulleys, V-belts, refrigeration fans, fan pulleys, and accessories. Engineering data section is included. Maurey Mfg. Corp., 2915 South Wabash Ave., Chicago, Ill.

Thermocouples

44-p. catalog of standard thermocouple assemblies and parts, giving information on the available couples and couple assemblies for general applications as well as those for special plant and laboratory

uses. Numerous tables list data on the accuracy limits of couples, the temperature and physical limitations of thermocouple materials, etc. Leeds & Northrup Co., 4934 Stenton Ave., Philadelphia, Pa.

Tabletting Presses

20-p. catalog illustrating and describing the design and fabrication of the diverse models of single-punch, rotary, mechanical and hydraulic tabletting presses used for pharmaceutical, powder metal, general industrial, and plastics production. F. J. Stokes Machine Co., 5500 Tabor Rd., Philadelphia, Pa.

Manometers

12-p. manual on manometers gives basic facts and definitions on pressure measurement and the manometer and explains the operation, installation and maintenance of the various types. King Engineering Corp., Box 510, Ann Arbor, Mich.

Exchanger Cell

4-p. folder explaining the two main design features—first, the level control and air dome system, and secondly, the special underdrain assembly—of the firm's exchanger cell which is specifically designed for ion-exchange applications in the process industries. The Dorr Co., Barry Place, Stamford, Conn.

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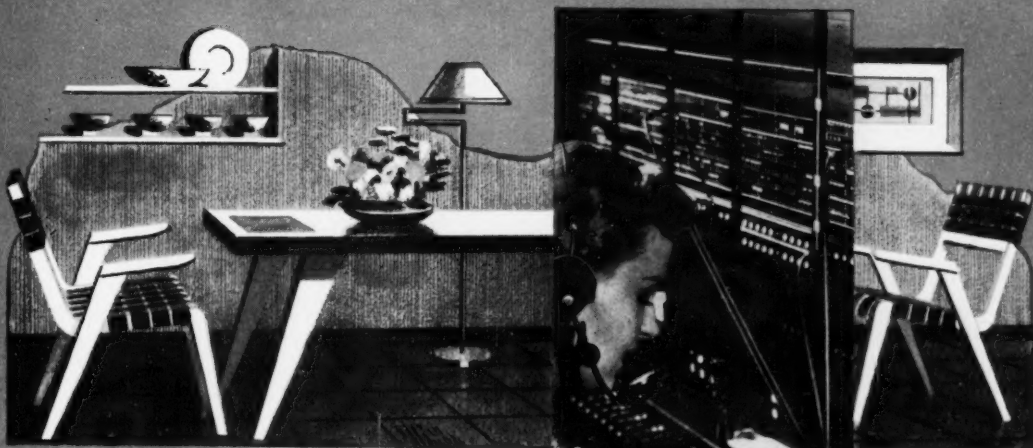
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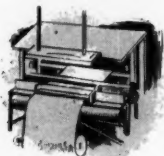
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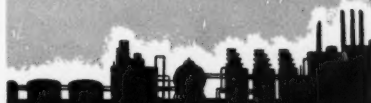
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